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       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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2: /cgn2_6/ptodata/1,
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4: /cgn2_6/ptodata/1,
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ALIGNMENTS

RESULT 1 US-10-057-531A-7

DB 241 DKIDLEKNEYDEBAIKKLINDDTKKUMLGKLESTGEVQNEENT	241	Qy 181 QKKESKFLPFLTNIETLYNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAID	Qy 121 IKESVENDIKFAQEGISYYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPDSPAKTDE	Qy 61 NININDIINSRIKKRKYFIDVIESDIMQFKHISSNEYIIEDSFKIINSEQKNTIIKKSYKY Db 61 NININDIINSRIKKRKYFIDVIESDIMQFKHISSNEYIIEDSFKIINSEQKNTIIKSYKY	Qy 1 MAHHHHHPGGSGSGTMAISVTMDNILSGPENEYDVIYLKPLAGVYRSLKKQIEKNIFTF	Query Match 100.0%; Score 2011; DB Best Local Similarity 100.0%; Pred. No. 5.8e-1. Matches 391; Conservative 0; Mismatches
GLVQNFFNT118KL1EGKFQUMLN18 300		KINDCNVEKDEAHVKITKLSDLKAID 240 KINDCNVEKDEAHVKITKLSDLKAID 240	KVIKEEKEKFPSSPPTTPPSPAKTDE 180	NEYIIEDSFKLLNSEQKNTLLKSYKY 120 	DVIYLKPLAGVYRSLKKQIEKNIFTF 60 	DB 2; Length 391; 8e-149; 0; Indels 0; Gaps 0

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APPLICANT: Ângov, Evelîna
TITLE OF INVENTION: Isolation and Purification of
TITLE OF INVENTION: Protein-142 Vaccine
FILE REFERENCE: 003/241/SAP
CURRENT FILING DATE: 2002-01-25
PRIOR APPLICATION NUMBER: US 60/264,535
PRIOR APPLICATION NUMBER: US 60/264,535
PRIOR FILING DATE: 2001-01-26
PRIOR FILING DATE: 2001-01-26
PRIOR FILING DATE: 2001-10-26
NUMBER: US 60/347,564
PRIOR FILING DATE: 2001-10-26
NUMBER: OF SEQ ID NOS: 12
SOFTWARE: Apple Macintosh Microsoft Word 6.0
SEQ ID NO 3
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OTHER INFORMATION:
Patent No. 6855322
S-10-057-531A-3
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Best Local Similarity
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US-10-057-531A-2
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APPLICANT: Angov, Evelina

ITITLE OF INVENTION: Isolation and Purification of

ITITLE OF INVENTION: Protein-142 Vaccine

FILE REFERENCE: 003/241/SAP

CURRENT APPLICATION NUMBER: US/10/057,531A

CURRENT FILING DATE: 2002-01-25

PRIOR APPLICATION NUMBER: US 60/264,535

PRIOR FILING DATE: 2001-01-26

PRIOR FILING DATE: 2001-01-26

PRIOR FILING DATE: 2001-10-26

NUMBER OF SEQ ID NOS: 12

SOFTWARE: Apple Macintosh Microsoft Word 6.0

SEQ ID NO 2
                                                                                                                                                                                                              RESULT 4
US-10-057-531A-1
                                                                                                                                        Sequence 1, Application US/10057531A Patent No. 6855322 GENERAL INFORMATION:
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GENERAL INFORMATION:
APPLICANT: Lyon, Jeffrey A.
APPLICANT: Angov, Evelina
TITLE OF INVENTION: Isolation and Purification
TITLE OF INVENTION: Protein-142 Vaccine
FILE REFERENCE: 003/241/SAP
CURRENT APPLICATION NUMBER: US/10/057,531A
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TYPE: PRT
ORGANISM: Artificial sequence
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al Similarity 89.5%;
385; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                     REECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTKPDSY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFRHLDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VNKI DDYL I NLKAK I NDCNVEKDEAHVKI TKLSDLKAI DDKI DLFKNPYDFEA I KKLI ND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGISYYEK 181
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                                                                                                                                                                                                                                                                                                                                                         PLFDGIFCSS 391
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Sequence in pET(50)MSP1-42
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Pred. No. 3.6e-144;
0; Mismatches 4;
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CURRENT FILING DATE: 2002-01-25;
PRIOR APPLICATION NUMBER: US 60/264,535;
PRIOR FILING DATE: 2001-01-26;
PRIOR APPLICATION NUMBER: US 60/347,564;
PRIOR FILING DATE: 2001-10-26;
NUMBER OF SEQ ID NOS: 12;
SOPTWARE: Apple Macintosh Microsoft Word 6.;
SEQ ID NO 1;
LENGTH: 546;
TYPE: PRT
ORGANISM: Artificial sequence;
PEATURE:
APPLICANT: Hui, George, S.N.
APPLICANT: Ho, Walter K.K.
APPLICANT: Lap-Yin, Pang
TITLE OF INVENTION: Malaria Vaccine
FILE REFERENCE: 23461-2001100
CURRENT APPLICATION NUMBER: US/09/710,000
CURRENT FILING DATE: 2000-11-10
PRIOR APPLICATION NUMBER: 60/226,861
PRIOR FILING DATE: 2000-08-22
PRIOR FILING DATE: 1999-11-12
PRIOR APPLICATION NUMBER: 60/165,178
PRIOR FILING DATE: 1999-11-12
PRIOR APPLICATION NUMBER: 60/168,327
PRIOR FILING DATE: 1999-12-11
NUMBER OF SEQ ID NOS: 11
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US-10-057-531A-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                        PLFDGIFCSS 391
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89.5%;
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Pred. No. 4.9e-144;
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APPLICANT: Lyon, Jeffrey A.

APPLICANT: Angov, Evelina
TITLE OF INVENTION: Isolation and Purification of P. fal
TITLE OF INVENTION: Procedin-142 Vaccine
FILE REFERENCE: 003/241/SAP
CURRENT APPLICATION NUMBER: US/10/057,531A
CURRENT FILING DATE: 2002-01-25
PRIOR APPLICATION NUMBER: US 60/264,535
PRIOR APPLICATION NUMBER: US 60/347,564
PRIOR FILING DATE: 2001-01-26
PRIOR FILING DATE: 2001-10-26
NUMBER OF SEQ ID NOS: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; LENGTH: 375; TYPE: PRT; ORGANISM: Unknown; PEATURE; CTHER INFORMATION: amino acid US-09-710-000-8
                      5
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US-10-057-531A-5
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                                                                                                                                 US-10-057-531A-5
                                                                                                                                                                                                SOFTWARE: Apple Macintosh Microsoft Word 6.0 SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 5, Application US/10057531A
Patent No. 6855322
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SEQ ID NO 8
                                                                   Matches
                                                                                              Query Match
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                                                                                                                                              LENGTH: 383
TYPE: PRT
ORGANISM: Plasmodium
                                                                                Local Similarity
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GSGTMAISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRL 72
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                                                                   Conservative
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                                                                             95.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       375
                                                               Score 1968; DB 2;
Pred. No. 3.6e-141;
0; Mismatches 3;
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                                                                                                                                                  3D7 MSP142
                                                                                                Length 383;
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                                                                   Indels
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                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOTTWARE: PatentIn Release #1.0, Ve:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/195,705
FILING DATE: 14-FEB-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Jacobs, Seth H
REGISTRATION NUMBER: 32140
REFERENCE/DOCKET NUMBER: 1180A3
TELEPHONE: 212-757-2200
TELEPHONE: 212-757-2200
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APPLICANT: Chang, Sandra
APPLICANT: Hui, George
APPLICANT: Barr, Philip
APPLICANT: Barr, Philip
APPLICANT: Gibson, Helen
TITLE OF INVENTION: FALCIPARUM VACCINE
TITLE OF INVENTION: FALCIPARUM VACCINE
                                                                                                                                                                            TELEFAX: 212-586-1461
INFORMATION FOR SEQ ID NO: 2:
               FRAGMENT TYPE: C-terminal ORIGINAL SOURCE:
                                                             MOLECULE TYPE:
                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 394 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESSEE: Davis Hox
                                               ANTI-SENSE:
                                                                                           TYPE: amino acid
STRANDEDNESS: sir
TOPOLOGY: linear
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ORGANISM:
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Plasmodium falciparum
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; LENGTH: 394
; TYPE: PRT
; ORGANISM: plasmodium falciparum
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US-08-195-705-2
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APPLICANT: University of Hawaii
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Best Local
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CURRENT APPLICATION NUMBER: US/09/500,376
CURRENT FILING DATE: 2000-02-08
PRIOR APPLICATION NUMBER: US 08/195,705
PRIOR FILING DATE: 1994-02-14
NUMBER OF SEQ ID NOS: 16
SOFTWARE: Patentin version 3.1
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YNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKK 257
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98.7%; Pred. No. 2.4e-138;
tive 1; Mismatches 4;
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Pred. No. 2.4e-138;
1; Mismatches 4;
                                                                                                                                                                                                                                                            Length 394;
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US-08-15-705-4
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; Patent No. 6420523
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TYPE: PRT
; ORGANISM: plasmodium falciparum
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TITLE OF INVENTION: Baculovirus Produced Plasmodium Falciparum Vaccine
FILE REFERENCE: A-67984
CURRENT APPLICATION NUMBER: US/09/500,376
CURRENT FILING DATE: 2000-02-08
PRIOR APPLICATION NUMBER: US 08/195,705
PRIOR FILING DATE: 1994-02-14
NUMBER OF SEQ ID NOS: 16
SOFTWARE: PatentIn version 3.1
SEQ ID NO 16
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Best Local Similarity
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Best Local Similarity
Matches 368; Conserv
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TELEPHONE: 212-757-2200
TELEPAX: 212-586-1461
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: peptide
HYPOTHETICAL: NO
FRAGMENT TYPE: C-termina
ORIGINAL SOUNCE:
ORGANISM: Plasmodium f
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APPLICANT: Hui, George
APPLICANT: Hui, George
APPLICANT: Barr, Philip
APPLICANT: Gibson, Helen
TITLE OF INVENTION: BACULOVIRUS PRODUCED PLASMODIUM
TITLE OF INVENTION: FALCIPARUM VACCINE
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/195,705 FILING DATE: 14-FEB-1994 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Jacobs, Seth H
REGISTRATION NUMBER: 32140
REFERENCE/DOCKET NUMBER: 1
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COUNTRY: USA
ZIP: 10111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Davis Hoxie Faithfull Hapgood STREET: 45 Rockefeller Pl. CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                        318
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                       301
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                                        HLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTK 377
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                                                                                                                                                                                        YNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKK 257
                                                                                                              LINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFR 317
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                       HLDEREECKCLLNYKQEGDKCEENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTK
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milarity 98.4%;
Conservative
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Pred. No. 1.4e-137;
0; Mismatches 6;
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RESULT 12
US-09-117-415B-22
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; TYPE: PRT
; ORGANISM: plasmodium
US-09-500-376-3
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                                                                                                   Sequence 22, Application US/09117415B
Patent No. 6551586
GENERAL INFORMATION:
APPLICANT: Davidson, Eugene
Yang, Shutong
TITLE OF INVENTION: Malaria Vaccine Based
of a MSAl Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/500,376
CURRENT FILING DATE: 2000-02-08
PRIOR APPLICATION NUMBER: US 08/195,705
PRIOR FILING DATE: 1994-02-14
NUMBER OF SEQ ID NOS: 16
SOFTWARE: PatentIn version 3.1
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: University of Hawaii
TITLE OF INVENTION: Baculovirus Produced Plasmodium Falciparum Vaccine
FILE REFERENCE: A-67984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3, Application US/09500376
Patent No. 6855316
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                              NUMBER OF SEQUENCES: 24
CORRESPONDENCE ADDRESS:
ADDRESSEE Henry D. Coleman,
STREET: 714 Colorado Avenue
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CITY: Bridgeport
STATE: Connecticut
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US-09-117-415B-18
; Sequence 18, Application US/09117415B
; Patent No. 6551586
; GENERAL INFORMATION:
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Matches 220;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: (212) 679-0090
TELEFAX: (212) 679-9121
INFORMATION FOR SEQ ID NO: 22:
SEQUENCE CHARACTERISTICS:
LENGTH: 613 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 10017

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Wordpad (ASCI)

CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/117,415B FILING DATE: 29-Jul-1998 CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
 CORRESPONDENCE ADDRESS:
ADDRESSEE: Henry D. Coleman,
STREET: 714 Colorado Avenue
                                                                                        APPLICANT: Davidson, Eugene
Yang, Shutong
TITLE OF INVENTION: Malaria Vaccine Based
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Coleman, Henry D.
REGISTRATION NUMBER: 32,559
REFERENCE/DOCKET NUMBER: R12-030
TELECOMMUNICATION INFORMATION:
                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                194
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                                                                       of a MSA1 Peptide
                                                                                                                                                                                                                                                                           611
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                    COLEMAN
                      TODOL
                                                                                            Upon
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                        SAPONE,
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LENGTH: 631 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 18:
US-09-117-415B-18
                                                                                                                                                 RESULT 14
US-09-117-415B-20
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Matches
                                                                                              Sequence 20, Application US/09117415B Patent No. 6551586 GENERAL INFORMATION:
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TELEPAX: (212) 679-9121
INFORMATION FOR SEQ ID NO: 18:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
les 220; Conserv
               APPLICANT: Davidson, Eugene
Yang, Shutong
TITLE OF INVENTION: Malaria Vaccine Based Upon the Addition
of a MSA1 Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARAE: WORDPAD (ASCII) CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Coleman, Henry D.
REGISTRATION NUMBER: 32,559
REFERENCE/DOCKET NUMBER: R1:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/117,415B
FILING DATE: 29-U1-1998
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NUMBER OF SEQUENCES: 24 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DVLGYYKILSEKYKSDLDSIKKYI----------NDKQGENEKYLPFLNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EGI6YYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTN 193
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MEDIUM TYPE: Floppy disk
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                                                               Sequence 16, Application Patent No. 6551586 GENERAL INFORMATION:
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US-09-117-415B-20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 631 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/117,415B
FILING DATE: 29-Jul-1998
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 679-0090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
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CECTKPDSYPLFDGIFCSS 611
                         CECTKPDSYPLFDGIFCSS 391
                                                                                                                       SGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKIT
                                                                                       SGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADAKCTEEDSGSNGKKIT
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TELEFAX: (212)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Coleman, Henry D.
REGISTRATION NUMBER: 32,559
REFERENCE/DOCKET NUMBER: R1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WordPad (ASCII)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Henry D. Coleman,
STREET: 714 Colorado Avenue
CITY: Bridgeport
STATE: Connecticut
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       56.3%; Score 1166.5; DB 2; 58.0%; Pred. No. 3.7e-80; tive 55; Mismatches 83;
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Yang, Shutong
TITLE OF INVENTION: Malaria Vaccine Based Upon

Eugene

of a MSA1 Peptide

US/09117415B

APPLICANT: Davidson,

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Search completed: May Job time : 48 secs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 56.3%; Score 1166.5; DB 2; Length 6
Best Local Similarity 58.0%; Pred. No. 3.8e-80;
Matches 220; Conservative 55; Mismatches 83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: (212) 679-0090
TELEFAX: (212) 679-9121
INFORMATION FOR SEQ ID NO: 16:
SEQUENCE CHARACTERISTICS:
LENGTH: 649 amino acids
TYPE: amino acid
TOPOLOCY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WORDPAC (ASCII)
CURRENT APPLICATION NUMBER: US/09/117,415B
FILLING DATE: 29-7u1-1998
FILLING DATE: 29-7u1-1998
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: COleman, Henry D.
REGISTRATION NUMBER: 32,559
REFERENCE/DOCKET NUMBER: R12-030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 24
CORRESPONDENCE ADDRESS:
ADDRESSE: Henry D. Coleman, COLEMAN SUDOL SAPONE,
STREET: 714 Colorado Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
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CITY: Bridgeport
STATE: Connecticut
COUNTRY: USA
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                                                                                                                                                            SGCFRHLDEREECKCLLNYKOEGDKCVENPNPTCNENNGGCDADAKCTEEDSGSNGKKIT 610
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Maximum Match 100%
Listing first 45 summaries
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seq length: 2000000000
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Match
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Gapop 10.0 , Gapext 0.5
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2071
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1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
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                  GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd.
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ALIGNMENTS

RESULT 1 A54498

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	Db 1668 PDSYPLEDGIFCSS 1681	QY 378 PDSYPLFDGIFCSS 391	Db 1608 HLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTK 1667	Qy 318 HLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTK 377	Db 1548 LINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFR 1607	Qy 258 LINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFR 317	Db 1488 YNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNTNDFEAIKK 1547	Qy 198 YNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKK 257	Db 1428 YYEKVLAKYKDDLESIKKVIKEEKEKFPS9PPTTPPSPAKTDEQKKESKFLPFLTNIETL 1487	Qy 138 YYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETL 197	Db 1368 FLDVLESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGIS 1427	Qy 78 FLDVLESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGIS 137	Db 1308 AISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIITFNLNLNDILNSRLKKRKY 1367	Qy 18 AISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKY 77	Query Match 93.8%; Score 1942; DB 2; Length 1701; Best Local Similarity 99.2%; Pred. No. 1.2e-93; Matches 371; Conservative 0; Mismatches 3; Indels 0; Gaps 0;	C; Keywords: surface antigen	A;Cross-references: UNIPROT:P13819; UNIPARC:UP1UUUU128631; GB:M19143; NIU:G160412; P1DN:P C;Superfamily: G surface protein		A;Status: preliminary	A;Reference number: A54498; MUID:88142999; PMID:2449612 A;Accession: A54498	A;Title: Variation in the precursor to the major merozoite surface antigens of Plasmodium	R;Peterson, M.G.; Coppel, R.L.; McIntyre, P.; Langford, C.J.; Woodrow, G.; Brown, G.V.; I	C.Species: Plasmodium falciparum	Major merozoite surface antigen precursor - 'malaria parasite (Plasmodium falciparum) (isc	782200

RESULT 2

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major merozoite surface antigen precursor - malaria parasite ()
N;Alternate names: 195K glycoprotein
C;Species: Plasmodium falciparum
C;Date: 30-Sep-1987 #sequence_revision 31-Mar-1991 #text_chang
C;Accession: A23386; S06361
R;Weber, J.L.; Leininger, W.M.; Lyon, J.A.
Nucleic Acids Res. 14, 3311-3323, 1986
A;Title: Variation in the gene encoding a major merozoite surf.
A;Reference number: A23386; MUID:86205236; PMID:3517809
A;Accession: A23386
A;Molecule type: DNA
A;Residues: 1-1104 <WEB1>
A;Cross-references: UNIPROT:P04934; UNIPARC:UPI0000174696; EMB:
A;Weber, J.L.; Sim, B.K.L.; Lyon, J.A.; Wolff, R.
Nucleic Acids Res. 16, 1206, 1988
A;Title: Merozoite surface protein sequence from the Camp stra:
A;Accession: S06361; MUID:88143999; PMID:3278296
A;Accession: S06361
C;Species: Plasmodium falcipa
C;Date: 19-Nov-1988 #sequence
C;Accession: A26868
R;Tanabe, K.; Mackay, M.; Gom
J. Mol. Biol. 195, 273-287, 1
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A;Residues: 1104-1726 <AWEB2>
A;Residues: 1104-1726 <AWEB2>
A;Residues: 1104-1726 <AWEB2>
A;Cross-references: UNIPARC:UPI0000174697; EMBL:X03831
A;Cross-references: UNIPARC:UPI0000174697; EMBL:X03831
A;Cross-references: UNIPARC:UPI0000174697; EMBL:X03831
C;Comment: The merozoite stages of different strains have strain-specific surface C;Comment: P. falciparum has three stages: sporozoite, merozoite, and gametocyte.
C;Comment: P. falciparum has three stages: sporozoite, tandem repeat
C;Keywords: glycoprotein; merozoite; surface antigen; tandem repeat
F;1-19/Domain: signal sequence #status predicted <SIG-F;20-1726/Product: major merozoite surface antigen #status predicted <MAT>F;67-87,91-96,100-105,109-120/Region: 3-residue repeats (S-G-T)
F;57-765/Region: 3-residue repeats (T-E-E)
F;133,272,501,567,638,827,839,924,944,990,1016,1114,1221,1613,1658/Binding site:
                                                                         major merozoite surface antigen precursor - malaria parasite (Plasmodium falciparum)
C;Species: Plasmodium falciparum
C;Date: 19-Nov-1988 #sequence_revision 19-Nov-1988 #text_change 31-Dec-2004
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A26868
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Local Similarity 98.7%;
nes 369; Conservative 1
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87, 1987
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Pred. No. 4.7e-93;
1; Mismatches 4;
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A; Molecule type: DNA
A; Residues: 1-651 <TOL>
A; Residues: 1-651 <TOL>
A; Cross-references: UNIPROT: Q25924;
A; Experimental source: strain RO-71
C; Superfamily: G surface protein
                                                                                                                                                                                                                                                                                                                                                    merozoite surface antigen 1 - malaria parasite C;Species: Plasmodium falciparum A;Variety: strain RO-71 C;Date: 06-Jan-1995 #sequence_revision 26-Jul-1 C;Date: 847282 R;Tolle, R.; Bujard, H.; Cooper, J.A.
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S47282
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A;Accession: A26868
A;Molecule type: DNA
A;Residues: 1-1701 <TAN>
A;Residues: 1-1701 <TAN>
A;Cross-references: UNIPARC:UPI0000177F8C
C;Superfamily: G surface protein
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A; Accession: $47282
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                                                                      AISVIMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKY
FLDVLESDLMQFKHISSNEYIIEDSFKLLNSEQKVTLLKSYKYIKESVENDIKFAQEGIS
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jor merozoite surface antigo
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Pred. No. 1.4e
2; Mismatches
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Pred. No. 1.5e-92;
0; Mismatches 6;
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m: recombination
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1.4e-92;
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A;Molecule type: DNA
A;Residues: 1-1726 <CHA>
A;Residues: 1-1726 <CHA>
A;Cross-references: UNIPROT:Q25922; UNIPARC:UPI0000177F89;
C;Superfamily: G surface protein
C;Keywords: surface antigen
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R;Chang, S.P.; Kramer, K.J.; Yamaga,
Exp. Parasitol. 67, 1-11, 1988
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C;Species: Plasmodium falciparum
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_chan
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 31-Dec-2004;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    AISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTENLNLNDILNSRLKKRKY
                                                                                                  HLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTK 377
                                                                                                                                                                         LINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFR 317
                                                                                                                                                                                                                                             YNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKK
                                                                                                                                                                                                                                                                                                                 YYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETL
                                                                                                                                                                                                                                                                                                                                                                FLDVLESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGIS
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                                                   PDSYPLEDGIFCSS 391
                                                                                                                                                       LINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFR
                                                                                                                                                                                                                                                                                             YYEKVLAKYKODLESIKKVIKEEKEKFPSSPPTTTPSPVKTDEQKKESKFLPFLTNIETL
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                                                                                                                                                                                                                          YNNLVNKNDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNHNDFEAIKK 1572
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ilarity 97.9%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1912; DB 2;
Pred. No. 4.6e-92;
1; Mismatches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              K.M.; Kato, A.; Case, S.E.; Siddiqui, W.
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A.Status. A.S.C.; Holder, A.A. A.R.Cession: A45545
A.Status. A.S.C.; Holder, A.A. A.R.Cession: A45545; MUID:92131048; PMID:1775158
A.Status. A.Status. A.S.C.C.
Nucleic Acids Res. 17, 5401, 1989
A;Title: Nucleotide and deduced amino acid sequence of the A;Reference number: S04850; MUID:89345116; PMID:2668887
A;Accession: S04850
A;Molecule type: mRNA
                                                                                                                                                                                                                      N;Alternate names; gp195 surface antigen (;Species: Plasmodium falciparum (C;Date: 12-Feb-1993 #sequence_revision 12-Feb-1993 C;Accession S05603; S04850
                                                                                                                                                                                                                                                                                                          RESULT
S05603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Molecule type: DNA
A;Residues: 1-400 <BLA>
A;Residues: 1-400 <BLA>
A;Cross-references: UNIPROT:Q03999; UNIPARC:UPI000007B5E4
A;Cross-reference extracted from NCBI backbone (NCBIN:77612,
A;Note: sequence extracted from NCBI backbone (NCBIN:77612,
C;Superfamily: G surface protein
C;Keywords: glycoprotein; merozoite; surface antigen; tander
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          major merozoite surface antigen - malaria parasite (Plasmodium f
C;Species: Plasmodium falciparum
C;Date: 17-Feb-1994 #sequence_revision 17-Feb-1994 #text_change
C;Accession: A45945
R;Blackman, M.J.; Ling, I.T.; Nicholls, S.C.; Holder, A.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
A45545
                                                                                                  A;Molecule type: mRNA
A;Residues: 1-1639 <MYL>
A;Cross-references: UNIPROT:P04933;
                                                                                                                                                                      A;Reference number: S05603
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                                                                                     R;Myler,
                                                                                                                                                       A; Accession: S05603
                                                                                                                                                                                                           R;Myler, P.J.
                                                                                                                                                                                                                                                                                            major merozoite surface antigen precursor -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Status: preliminary
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Best Local Similarity
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                                                                                     P.J.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AIKKLINDDTKKDMLGKLLSTGLV-QNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPEN 312
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        merozoite; surface antigen; tandem repeat
                                                                                                                                                                                        Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      55;
                                                                                                     UNIPARC: UPI000000672; EMBL: X15063; NID: g9896;
                                                                                                                                                                                        April 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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PIDN:(

(8t)

Plasmo

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A;Molecule type: DNA
A;Residues: 1-1631 <MAC>
A;Cross-references: UNIPARC:UPI0000174695
A;Cross-references: UNIPARC:UPI0000174695
C;Comment: The merozoite stages of different strains have strain-specific surface C;Comment: P. falciparum has three stages: sporozoite, merozoite, and gametocyte. C;Superfamily: G surface protein
C;Superfamily: G surface protein
C;Keywords: glycoprotein; merozoite; surface antigen; tandem repeat; transmembrane
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-1631/Producti major merozoite surface antigen #status predicted <MAT>
F;67-84/Region: 3-residue repeats (S-G-T/P)
                                                                                                                                                                                                                                                                                                                                  C;Accession: A25120
R;Mackay, M.; Goman, M.; Bone, N.; Hyde, J.E.; Scaife, J.; CemMBO J. 4, 3823-3829, 1985
A;Title: Polymorphism of the precursor for the major surface A;Reference number: A91030; MUID:86136024; PMID:3004972
A;Accession: A25120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Residues: 1504-1639 <MYLL>
A;Cross-references: UNIFARC:UPI0000177F84; EMBL:X15063
A;Cross-references: UNIFARC:UPI0000177F84; EMBL:X15063
C;Superfamily: G surface protein
C;Keywords: glycoprotein; merozoite; surface antigen
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-1639/Product: major merozoite surface antigen #status predicted
ş
                                                                                                                                                    F;1614-1631/Domain: membrane anchor #status predicted <MBN>F;97,259,755,759,835,911,955,1049,1156,1165,1436,1563/Binding
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                               TGEAVTPSVIDNILSKIENEYEVLYLKPLAGVYRSLKKQLENNVMTFNVNVKDILNSRFN 1311
                                               SGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKIT 372
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                                                                                        Score 1043; DB 1;
Pred. No. 8.5e-47;
8; Mismatches 96;
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A;Molecule type: DNA
A;Residues: 1-1640 <HOL>
A;Cross-references: UNIPROT:P04933;
C;Superfamily: G surface protein
C;Keywords: surface antigen
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A;Title: Primary structure of the precursor to the three major surface antigens of A;Reference number: A24594; MUID:86014355; PMID:2995820
A;Accession: A24594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          probable major surface antigen (83K, 19K, 42K) precursor - malaria parasite C;Species: Plasmodium falciparum C;Date: 29-Aug-1987 #sequence_revision 29-Aug-1987 #text_change 31-Dec-2004 C;Accession: A24594 R;Holder, A.A.; Lockyer, M.J.; Odink, K.G.; Bandhu, J.S.; Riveros-Moreno, V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NSGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKI 371
                                                                                      NSGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSSKKKI 371
                                                                                                                                                                             GIADLSTDYNHNNLLTKFLSTGMVFENLLKSVLSNLLDWKLARYVKHFTTPMRKKTMIQQ
                                                                                                                                                                                                        AIKKLINDDTKKDMLGKLLSTGLV-QNFPNTIISKLIEGKF-QDMLNISQHQCVKKQCPE 311
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Plasmo

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A;Status: preliminary
A;Molecule type: DNA
A;Residuse; 1-1751 <GIB>
A;Cross-references: UNIPROT:Q26194; UNIPARC:UPI0000083C26; A;Note: sequence extracted from NCBI backbone (NCBIN:83591, C;Superfamily: G surface protein C;Keywords: surface antion
                                                                                                                                                                  C;Accession: A45604

R;Gibson, H.L.; Tucker, J.E.; Kaslow, D.C.; Krettli, A.U.; Collins, W.E.; Kiefer, Mol. Biochem. Parasitol. 50, 325-333, 1992

A;Title: Structure and expression of the gene for Pv200, a major blood-stage surfa A;Reference number: A45604; MUID:92158013; PMID:1371329

A;Accession: A45604
                                                                                                                                                                                                                                                                                          major blood-stage surface antigen Pv200 - Plasmodium vivax
C;Species: Plasmodium vivax
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A;Title: Primary structure of the merozoite surface antigen 1 of A;Reference number: A39401; MUID:91219506; PMID:2023952
A;Accession: A39401
A;Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  merozoite surface antigen 1 precursor - Plasmodium vivax
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                                                                                                                                                                                                                                                                      Date: 22-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 31-Dec-2004
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Best Local Similarity 43.1%;
Matches 160; Conservative
   Local Similarity
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 37.7%;
40.8%;
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Pred. No. 1.1e-33;
5; Mismatches 114;
 Score
Pred.
781; DB 2;
No. 4.2e-33;
               Length
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                                                                                      GB:M75674; NID:g160608; PID , NCBIP:83592)
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A;Molecule type: DNA
A;Residues: 1-680 <BUR>
A;Residues: 1-680 <BUR>
A;Cross-references: UNIPROT:D13828; UNIPARC:UPI000016BFD4; GB:J03612;
A;Experimental source: strain 17XL
A;Note: the authors translated the codon GTA for residue 429 as Leu C;Superfamily: G surface protein C;Keywords: surface antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Burns Jr., J.M.; Daly, T.M.; Vaidya, A.B.; Long, C.A. Proc. Natl. Acad. Sci. U.S.A. 85, 602-606, 1988 A;Title: The 3' portion of the gene for a Plasmodium yoelii A;Reference number: A28121; MUID:88124889; PMID:2448778 A;Accession: A28121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  major merozoite surface antigen - Plasmodium yoelii (fragment)
C;Species: Plasmodium yoelii
C;Date: 30-Jun-1989 #sequence_revision 30-Jun-1989 #text_change
C;Accession: A28121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             h 26.7%; Score 553.5; DB Similarity 30.8%; Pred. No. 1e-21;
                                                                                                                                                                                                             ||::::|: : || : : ||: :||::|: | ::|: | ::|:|
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GVKTEIKKVEDDI-----KKQDEELKKLGNVNSQDSKKNEFIAKKAELEKYLPF
                                                                                                                                                                                                                                                                                                                            VYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKYFLDVLESDLMQFKHISSNEYIIEDSFK 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SSSGEYTIKDPYKLIDLEKKKKLIGSYKYIGASIDMDLATANDGVTYYNKMGELYKTHLD 1490
  KAEFEILTKNLEKYIQIDEKLDEFVEHAE---
                                         KDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKKLINDDTKKDMLGKLLSTGLV-QNFP
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                                                                                                                                         PSSPPTTPPSPAKTDEQKKE--SKFLPFLTNIETLYNNLVNKIDDYLINLKAKINDCNVE
                                                                                                                                                                                       LLDNDKKDKQIVNLKYATKGINEDIETTTDGIKFFNKMVEVYNTQLAAVKEQIATIE----
                                                                                                                                                                                                                                                                                                                                                                          PGAVPGSGTDTRVAGSSVDDNEDDDIYQIASGQSEDAPEKDILSEFTNESLYVYTKRLGS
                                                                                                                                                                                                                                                                                                                                                                                                                         PG---GSGSGTMAISVTMD-----
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                                                                                             AETNOTNKEEKKKY I PILEOLKGLYETVI GQAEEYSEELQNRLDNYKNE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88; Mismatches 147;
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  -NNKHIASIALNNLNKSGLVGEGES
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A; Molecule type: DNA
A; Molecule type: DNA
A; Residues: 1-1772 <LEW>
A; Cross-references: UNIPROT: Pl3828; UNIPARC: UPI000012F636; GB: J04668; NID: g160492;
A; Cross-references: UNIPROT: Pl3828; UNIPARC: UPI000012F636; GB: J04668; NID: g160492;
R; Daly, T.M.; Burns Jr., J.M.; Long, C.A.
Mol. Biochem. Parasitol. 36, 283-285, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Title: Cloning and analysis of the gene encoding the 230-kilodalton merozoite surface A;Reference number: A45532; MUID:90014981; PMID:2797063
A;Accession: A45532
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major merozoite
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A; Residues: 454-1094 <DAL>
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                                                                                                                             VENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTKPDSYPLFDGIFCSS 391
                                                                                                                                                                   KKILAKMLNMDGMDLLGVDPKHVCVDTRDIPKNAGCFRDDNGTEEWRCLLGYKKGEGNTC
                                                                                                                                                                                                    NTIISKLIEGKFQDMLNIS-QHQCV-KKQCPENSGCFRHLDEREECKCLLNYKQ-EGDKC 338
                                                                                                                                                                                                                                                                              KDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKKLINDDTKKDMLGKLLSTGLV-QNFP 281
                                                                                                                                                                                                                                                                                                                                                     PSSPPTTPPSPAKTDEQKKE--SKFLPFLTNIETLYNNLVNKIDDYLINLKAKINDCNVE
                                                                                                                                                                                                                                                                                                                                                                                                                              LLNGEOKNTLLKSYKYIKESVENDIKFAQEGISYYEKVLAKYKDDLESIKKVIKEEKEKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PGAVPGSGTDTRVAGSSVDDNEDDDIYQIASGQSEDAPEKDILSEFTNESLYVYTKRLGS 1420
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                                                                                            VENNNPTCDINNGGCDPTASCQNAESTENSKKIICTCKEPTPNAYYEGVFCSS 1752
                                                                                                                                                                                                                                             KAEFEILTKNLEKYIQIDEKLDEFVEHAE-----NNKHIASIALNNLNKSGLVGEGES 1639
                                                                                                                                                                                                                                                                                                                                                                                            LLDNDKKDKQIVNLKYATKGINEDIETTTDGIKFFNKMVELYNTQLAAVKEQIATIE----
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 surface
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                                                                                                                                                                                                                                                                                                                  -----AETNDTNKEEKKKYIPILEDLKGLYETVIGQABEYSEBLQNRLDNYKNE
antigen
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precursor -
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Pred. No. 3.1e-21;
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 Plasmodium
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chabaudi chabaudi
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                                      Matches
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R;Gardner, M.J.; Tettelin, H.; Carucci, D.J.; Cummings, L.M.; Aravind, L.; Koonin, E.V.; Pertea, M.; Salzberg, S.; Zhou, L.; Sutton, G.G.; Clayton, R.; White, O.; Smith, H.O.; Science 282, 1126-1122, 1998
A;Title: Chromosome 2 sequence of the human malaria parasite Plasmodium falciparum.
A;Reference number: A71600; MUID:99021743; PMID:9804551
A;Accession: E71606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Plasmodium chabaudi cnabaudi
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 31-Dec-2004
C;Accession: A45546
R;Deleersnijder, W; Hendrix, D.; Bendahman, N.; Hanegreefs, J.; Brijs, L.;
R;Deleersnijder, W; Hendrix, D.; Bendahman, N.; Hanegreefs, J.; Brijs, L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hypothetical protein PFB0765w - malaria parabite (Plasmodium falciparum)
C;Species: Plasmodium falciparum
C;Date: 13-Nov-1998 #sequence_revision 13-Nov-1998 #text_change 31-Dec-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
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                                                                                                                                                                                                                 A;Residues: 1-980 <GAR>
A;Cross-references: UNIPROT:Q81659;
                                                                                                                                                                                                                                                                            A;Status: preliminary; nucleic acid
A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Cross_references: UNIPROT:Q25685; UNIPARC:UPI000007B6DB; GB:M34947; NID:g160597;
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A; Residues: 1-1785 < DEL>
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                                                  Query Match
Best Local :
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hes 122;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            E71606
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKKLIND 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETLYNNL 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEREECKCLLNYKQ--EGDKCVENPNPTCNENNGGCDADATCTEEDS--GSSRKKITCEC 375
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LNGAEEFSELLQHKLENYKIEKAGFDILMANLETYIRIDEKLEDF-----VESAEK--NK 1629
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           8.7%; pre
23.7%; pre
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; Pred. No. 4.6e-20;
86; Mismatches 134
                    Score 180.5; DB 2;
Pred. No. 0.043;
77; Mismatches 140;
                                                                                                                                                                                                                          UNIPARC: UPI00001788F1;
                                                                                                                                                                                                                                                                                                         sequence
                                                                                                                                                                                                                                                                                                         not shown;
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                                                                                                                                                                                                                          GB:AE001417; GB:AE001362; NID:
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                                                                                                                                                                                                                                                                                                               not
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Similarity

Conservative

ENEYDVIYLKPLAGVYRSLKKQIEKNI-------

- FTFNLNLNDIL - - - NSRLKK

74 23,

Indels 111;

Gaps

Вb	
γ	75 RKYFLDVLESDLMQFKHISSNEYIIEDSFK 104
Вb	302 KDRKIDLITNIENELLKKKEINNIKLMEKQNVIKNNEQLIKDIKDENEKMNEHVNKLQNE 361
δλ	105 LLNSEQKNTLL-KSYKYIKESVENDIKFAQEGISYYEKVLAKYKDDLESIKK 155
망	362 LIKRELONKCISKDIEFCKKEKEDKIKNLEDDLLEKKKCIENLKDELINIKKKMEDKWHM 421
δ	156VIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETLYN-NLVNKI 205
Вb	422 TNEMDLISNKVEELNRINKTYEKNIVELNNELDVIKKKLNDEEFLKEEEKKKNIDMVYKI 481
γŞ	206 DDYLINLKAKINDC-NVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKKLINDDTK 264
Db	482 KEYETQIKEKENEIDSLKKNEQNLHVLKNEELNEKEIILKNKYDKE-INMIIEQYNK 537
Ş	265KDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPE 311
Вb	538 KIQEEKDMLNNKIKS-MDQTHKNQIEEMQEENKKELKRVCDM-NLQSQILIKE 591
Ş	312 NSGCFRHLDER-BECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEE 362
Вb	592 NEKHMQEKVEEYKNLLKQKDQELKNIIQEYDERIEIQNKEMEDIVNDCEEKLK 644
Ş	363 DSGSSRKKIT 372
Вb	645 QAKINNKKLT 654
Search con Job time	Search completed: May 5, 2006, 00:25:18 Job time : 41 secs

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Result
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Maximum DB seq length: 200000000
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
    Score
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1 MAHHHHHHPGGSGSGTMAIS.....TCECTKPDSYPLFDGIFCSS 391
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(c) 1993 - 2006 Biocceleration Ltd
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Chillingworth T., Christodoulou Z., Clark L., Clark R., Corton C.,
RA Cronin A., Davies R., Davis P., Dear P., Dearden F., Doggett J.,
RA Cronin A., Davies R., Davis P., Dear P., Dearden F., Doggett J.,
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RA Humphray S., Jagels K., James K.D., Johnson D., Kerhornou A.,
RA Line A., Maddison M., Mclean J., Mooney P., Moule S., Murphy L.,
RA Cliver K., Ormond D., Price C., Quail M.A., Rabbinowitsch E.,
RA Rajandream M.A., Rutter S., Rutherford K.M., Sanders M., Simmonds M.,
RA Seeger K., Sharp S., Smith R., Squares R., Squares S., Stevens K.,
RA Sulston J.E., Craig A., Newbold C., Barrell BG.;
"Sequence of Plasmodium falciparum chromosomes 1, 3-9 and 13.";
RI Nature 419:527-531(2002).
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Plasmodium falciparum (isolate 3D7).
Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
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GO; GO:0009405; P:pathogenesis; IEA.
InterPro; IPR006209; EGF like.
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01-NOV-1996 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Merozoite surface antigen 1 (Fragment).
Name=gg190; Synonyms=MSA1, MSP1, PMMSA;
Plasmodium falciparum.
Plasmodium falciparum.
Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
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Pfam; PF07462; MSP1_C; 1.
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GO; GO:0016020; C:membrane; IEA.
GO; GO:0009405; P:pathogenesis;
InterPro; IPR006209; EGF like.
InterPro; IPR010901; MSPI_C.
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Tolle R., Bujard H., Cooper J.A.;
"Plasmodium falciparum: variations within the C-termina
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                                                                                                                                       AISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKY
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FLDVLESDLMQFKHISSNEYIIEDSFKLLNSEQKVTLLKSYKYIKESVENDIKFAQBGIS
                                                                                              AISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKY
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                                                                                                                                                                                                                                                                                                                                            652
                                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                  Score 1961; DB 2;
Pred. No. 7.3e-91;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                            2B6A87737B490A62 CRC64;
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Best Local Similarity
Matches 369; Conservat
                                                                                                                                                                                                                                              GO; GO:0016020; C:membrane; IEA.
GO; GO:0009405; P:pathogenesis; IE
InterPro; IPR006209; EGF like.
InterPro; IPR010901; MSPI_C.
Pfam; PF00008; EGF; 1.
Pfam; PF07462; MSPI_C; 1.
Membrane; Merozoite.
NON TER
373 373
NON TER
373 373
                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
Shi Y.-P., Alpers M.P., Pov
Submitted (FEB-1995) to the
-i- SUBCELLULAR LOCATION: A
similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QZ5723 PLAFA PRELIMINARY; PRT; 373 AA. Q25723; Q25723; Q1-NOV-1996 (TrEMBLrel. 01, Created) 01-NOV-1996 (TrEMBLrel. 01, Last sequence update) 01-MAR-2004 (TrEMBLrel. 26, Last annotation update) Merozoite surface protein 1, 42 kDa C-terminal regiments.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=MSP-1;
Plasmodium falciparum.
Eukaryota; Alveolata;
                                                                                                                                                                                                                                                                                                                                                              EMBL; U20728; AAA62219.1; -; Genomic_DNA
HSSP; Q25976; 10B1.
SMR; Q25723; 281-373.
                                                                                                                                                                                                                                      SEQUENCE
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                                                   YYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETL
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YNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKK
                                                                                     FLDVLESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGIS
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                                      YYEKVLAKYKODLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETL
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                                                                                                                                                                                                                                 373
373
                                                                                                                                                                                      Conservative
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                                                                                                                                                                                                                                      42849 MW;
                                                                                                                                                                                              93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Apicomplexa; Haemosporida; Plasmodium
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N: Attached to the membrane by a GPI-anchor (B)
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                                                                                                                                                                                      2
                                                                                                                                                                                    Score 1942; DB 2;
Pred. No. 3.6e-90;
2; Mismatches 2;
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Best Local S
Matches 371
                                                                                                                                                                                                                                                                                                                                                                                           Membrane;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Major merozoite surface protein (Fragmént).
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SMR; Q9TV22; 457-549.
GO; GO:0016020; C:membrane; IEA.
GO; GO:0009405; P:pathogenesis;
InterPro; IPR0106209; EGF like.
InterPro; IPR010901; MSPI_C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; D13343; BAA02604.1; -; HSSP; P04933; ICEJ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-88011243; PubMed=3079521;
Tanabe K., Mackay M., Goman M., Scaife J.G.;
"Allelic dimorphism in a surface antigen gene
Plasmodium falciparum.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9TYG2_PLAFA
Q9TYG2;
                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF00008; EGF; 1.
Pfam; PF07462; MSP1_C; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       field isolates.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIINE-93295445; PubMed-8515786; DOI=10.1016/0166-6851(93)90010-U; Jongwutiwes S., Tanabe K., Kanbara H.; Jongwutiwes S., Tanabe K., Kanbara H.; "Sequence conservation in the C-terminal part of the precursor to temporal major merozoite surface proteins (MSPI) of Plasmodium falciparum fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Plasmodium falciparum
Eukaryota; Alveolata;
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                                                                                                                                                                                                                                                                                                 Similarity
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                                                                                     AISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKY
YYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETL
                          YYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETL
                                                                                                                                                                               AISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIITFNLNLNDILNSRLKKKKKY
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                                                                                                                                                                                                                                                                                                                                                                                                                 Merozoite.
                                                                                                                                                                                                                                                                                                                                                                  1 1 570 AA; 64630 MW; 8674DEC89B2D662A CRC64;
                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                              93.8%;
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Pred. No. 5.7e-90;
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Best Local S
Matches 371
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GO; GO:0016020; C:membrane; IEA.
GO; GO:0009405; P:pathogenesis; IE
InterPro; IPR016209; EGF like.
InterPro; IPR010901; MSPI_C.
Pfam; PF070462; MSPI_C; 1.
Membrane; Merozoite.

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68 PLAFA
025968 PLAFA PRELIMINARY; PRT; 570 AA.
025968;
01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Major merozoite surface protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Name=MSP1;
Plasmodium falciparum.
Eukaryota; Alveolata;
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field isolates.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=5833;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: Attached to the membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               similarity)
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                                                       YNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKK
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          LINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFR
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nilarity 99.2%;
Conservative
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Best Local S
Matches 371
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SMR; Q764L1; 1581-1673.
GO; GO:0016020; C:membrane; IEA.
GO; GO:0009405; P:pathogenesis; IE InterPro; IPR006209; EGF 11ke.
InterPro; IPR010901; MSPI_C.
Pfam; PF070462; MSPI_C; 1.
Pfam; PF070462; MSSPI_C; 1.
Membrane; Merozoite; Repeat.
SEQUENCE 1694 AA; 193467 MW; 6
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Tanabe K., Sakihama N., Kaneko A.;

"Stable SNPsin Malaria Antigen Genes in Isolated Pc
Science 303:493-493(2004).

-!- SUBCELLULAR LOCATION: Attached to the membrane
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Eukaryota; Alveolata;
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Merozoite surface protein 1.
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Q764L1;
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Pred. No. 1.9e-89;
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"Variation in the precursor to the major merozoite surface antige:
"Plasmodium falciparum.";
MOI. Bicchem. Parasitol. 27:291-302(1988).
-!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-ancho
-!- PTM: Merozoite surface antigen contain the sequence of 83 kDa
kDa and 19 kDa antigens which are the major surface antigens
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between
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Pfam; PF07462; MSP1_C; 1.
Glycoprotein; GPI-anchor; Lipoprotein; Malaria;
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P13819;
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HSSP; P04933; 1CEJ.
SMR; P13819; 1588-1680.
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01-JAN-1990 (Rel.
10-MAY-2005 (Rel.
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InterPro; IPR010901; MSPI_C.
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Eukaryota; Alveolata; Apicomplexa; Haemosporida;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=88142999; PubMed=2449612; DOI=10.1016/0166-6851(88)90049-7; Peterson M.G., Coppel R.L., McIntyre P., Langford C.J., Woodrow G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUCLEOTIDE SEQUENCE.
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GPI anchor amidated serine
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05-JUL-2004 (Rel. 44, Last sequence update)
10-MAY-2005 (Rel. 47, Last annotation updat
Merozoite surface protein 1 precursor (Mero
(PMMSA) (P190).
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P08569;
EMBL; X05624; CAA29112.2; -; G
HSSP; P04933; 1CEJ.
SMR; P08569; 1588-1680.
InterPro; IPR006209; EGF_like.
InterPro; IPR010901; MSPI_C.
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                                                                                                                                                                                                                                                                                                                                                                                                           "Polymorphism of the precursor for the major surface antigens Plasmodium falciparum merozoites: studies at the genetic level
                                                                                                                                                                                                                                                                                                                                                                                            EMBO
                                                                                                                                                                                                                                                                                                                                                                                                                                 Stunnenberg H., Bujard H.; "Polymorphism of the precursor for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=88011243; PubMed=3079521;
Tanabe K., Mackay M., Goman M., Scaife
"Allelic dimorphism in a surface antige
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Eukaryota; Alveolata;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=86136024; PubMed=3004972;
                                                                                                                                                                                                                                                                                   PTM: Merozoite surface antigen contain the sequence of 83 kDa, kDa and 19 kDa antigens which are the major surface antigens o merozoites. The maturation take place during schizont.
                                                                                                                                                                                                                                                                                                                                                              ) J. 4:3823-3829(1985).
SUBCELLULAR LOCATION: Attached to the membrane by
                                                                                                                                                                                               European
                                                                                                                                                                    Swiss-Prot entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its as long as its content is in no way modified and this statement is not
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Pfam; PF07462; MSP1_C; 1.

Glycoprotein; GPI-anchor; Lipoprotein; Ma
Polyprotein; Repeat; Signal.

SIGNAL 1 19 Potential.

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PROPEP 1681 1701 Removed in m
LIPID 1680 1680 GPI-anchor a
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QZ5722 PLAFA PRELIMINARY;
QZ5722;
Q25722;
Q1-NOV-1996 (TrEMBLrel. 01, Cr
01-NOV-1996 (TrEMBLrel. 01, La
01-MAR-2004 (TrEMBLrel. 26, La
Merozoite surface protein 1, 4
Namme=MSP-1;
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Eukaryota; Alveolata;
NCBI_TaxID=5833;
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Merozoite surface protein 1.

Removed in mature form (By s

GPI-anchor amidated serine (
similarity).

N-linked (GlcNAc. . .) (Pote
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Last sequence update)

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Best Local Similarity
Matches 368; Conser
EMBL; U20732; AAA62223.1; -; Genon
HSSP; Q25976; 10B1.
SMR; Q25727; 281.373.
GO; GO:0016020; C:membrane; IEA.
GO; GO:0009405; P:pathogenesis; II
InterPro; IPR006209; EGF_like.
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Q25727;
01-NOV-1996 (TrEMBLrel. 01, Cr
01-NOV-1996 (TrEMBLrel. 01, La
01-MAR-2004 (TrEMBLrel. 26, La
Merozoile surface protein 1, 4
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SMR; Q25972; 281-371.

GO; GO:0016020; C:membrane; IEA.
GO; GO:009405; P:pathogenesis; I
InterPro; IPR006209; EGF like.
InterPro; IPR010901; MSPI_C.
Pfam; PF000008; EGF; 1.
Pfam; PF07462; MSPI_C: 1.
Membrane; Merozoite.
                                                                                                                                                                                                                                                                                             Merozoite su
Name=MSP-1;
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NON_TER
SEQUENCE
                                                                                                                                   NUCLEOTIDE SEQUENCE.
Shi Y.-P., Alpers M.P., Postibilited (FEB-1995) to ti-i- SUBCELLULAR LOCATION:
                                                                                                                                                                                                                                  Plasmodium falciparum.
Eukaryota; Alveolata;
NCBI_TaxID=5833;
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373 AA;
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98.7%;
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                                                                                                                                                                                                                                                                                                               Created)
Last sequence update)
Last annotation update)
, 42 kDa C-terminal region
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Pred. No. 8.1e-90;
2; Mismatches 3;
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Best Local
EMBL; D13351; BAA02612.1; -; Ger HSSP; P0493; 1CEJ.
SWB; Q25978; 456-548.
GO; GO:0016020; C:membrane; IEA.
GO; GO:0009405; P:pathogenesis; InterPro; IPR006209; EGF like.
InterPro; IPR010901; MSPI_C.
Pfam; PF00008; EGF; 1.
Pfam; PF07462; MSPI_C; 1.
Membrane; Merozoite.
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Plasmodium falciparum.
Eukaryota; Alveolata; ;
NCBI_TaxID=5833;
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78 PLAFA
OZ5978-PLAFA PRELIMINARY; PRT; 569 AA.
OZ5978;
O1-NOV-1996 (TrEMBLrel. O1, Created)
O1-NOV-1996 (TrEMBLrel. O1, Last sequence update)
O1-MAR-2004 (TrEMBLrel. 26, Last annotation update)
O1-MAR-2004 (Tremstrel. 26, Last annotation update)
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Pfam; PF07462; MSP1 C
Membrane; Merozoite.
NON TER 1
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field
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                                                                                                                                                                                                                                                                                                                                                                              NUCLEOTIDE SEQUENCE
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373 AA;
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Pred. No. 1e-8
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Best Local S
Matches 371
                                                                                                                                 NUCLEOTIDE SEQUENCE OF 1104-1726.

MEDILINE-88143999, PubMed=3278296;

Weber J.L., Sim B.K.L., Lyon J.A., Wolff R.;

Webrozoite surface protein sequence from the Camp strain of malaria parasite Plasmodium falciparum.";

Nucleic Acids Res. 16:1206-1206(1988).

-!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI
-!- PTM: Merozoite surface antigen contain the sequence of kDa and 19 kDa antigens which are the major surface ant merozoites. The maturation take place during schizont.
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MEDLINE=86205236; PubMedd=3517809;

Weber J.L., Leininger W.M., Lyon J.A.;

Weriation in the gene encoding a major merozoite

"Variation in the gene encoding a falciparum."

Nucleic Acids Res. 14:3311-3323(1986).
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01-MAR-1989 (Rel. 10, Last sequence update)
10-MAY-2005 (Rel. 47, Last annotation update)
Merozoite surface protein 1 precursor (Merozoite (PMMSA) (P195).
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Eukaryota; Alveolata;
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                      s Swiss-Prot entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation Buropean Bloinformatics Institute. There are no restrictions on it as long as its content is in no way modified and this statement is no
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between

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RESULT 14

MSP1 PLAF3 STAN

MSP1 PLAF3 STAN

DT 01-FEB-1991 (Rel. 1

DT 01-NOV-1997 (Rel. 3

DT 10-MAY-2005 (Rel. 4

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InterPro; IPR010901; MSPI_C.
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Pfam; PF07462; MSPI_C; 1.
Glycoprotein; GPI-anchor; Lipoprotein;
POlyprotein; Repeat; Signal.
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PIR; ;
HSSP;
SMR; ;
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EMBL; Y00087; CAA68380.1; -; Gen
EMBL; Z35326; CAA64555.1; -; Gen
EMBL; Z35326; CAA64555.1; -; Gen
HSSP; P04933; 1CEJ.
INTERPRO; IPR006209; EGF like.
INTERPRO; IPR006209; EGF like.
INTERPRO; IPR010901; MSPI_C.
Pfam; PF000008; EGF; 1.
Pfam; PF07462; MSPI_C; 1.
Glycoprotein; GPI-anchor; Lipopr
P01yprotein; Repeat; Signal.
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Eukaryota; Alveolata; I
NCBI_TaxID=5834;
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SEQUENCE
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Exp. Parasitol. 81:47-54(1995).
-i- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
-i- PTM: Merozoite surface antigen contain the sequence of 83 kDa, '
kDa and 19 kDa antigens which are the major surface antigens of
merozoites. The maturation take place during schizont.
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MEDLINE=95354793; PubMed=7628566; DOI=10.1
Tolle R., Bujard H., Cooper J.A.;
"Plasmodium falciparum: variations within
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUCLEOTIDE SEQUENCE OF 1-1061.
MEDLINE=8816657; PubMed=327688;
Certa U., Rotmann D., Matile H., Reber-l
"A naturally occurring gene encoding the
precursor p190 of Plasmodium falciparum
EMBO J. 6:4137-4142(1987).
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LKKVI KEEKE
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Merozolte surface protein 1.

Removed in mature form (By signamoved in mature form)

GPI-anchor amidated serine (E similarity).

N-linked (GlcNAc...) (Poten N-linked M-linked (GlcNAc...) (Poten N-linked M-linked M-link
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exa; Haemosporida;
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FPSSPPTTPPSPAKTDEQKKESKFLPFLTNI
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01-JUN-1998 (TrEMBLrel. 06, Cr
01-JUN-1998 (TrEMBLrel. 06, La
01-MAR-2004 (TrEMBLrel. 26, La
Marozoite surface protein-1 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GO; GO:0016620; C:membrane; IEA.
GO; GO:000405; P:pathogenesis; IEA.
InterPro; IPR006209; EGF like.
InterPro; IPR010901; MSPI_C.
Pfam; PF00008; EGF; 1.
Pfam; PF07462; MSPI_C; 1.
Membrane; Merozoite.
NON_TER 373 373
SEQUENCE 373 AA; 42903 MW; 86CD4B7
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MEDLINE-98319411; PubMed=9657329; DOI=10.1016/S0166-6851(98)00010-3;
Qari S.H.; Shi Y.P., Goldman I.F., Nahlen B.L., Tibayrenc M.,
Lal A.A.;
Predicted and observed alleles of plasmodium falciparum merozoite
"Predicted and observed alleles of plasmodium falciparum merozoite"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AF040568; AAC39098.1; -; Genomic_DNA.
HSSP; Q25976; 10B1.
SMR; Q43996; 281-373.
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Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        surface protein-1 (MSP-1), a potential malaria vaccine antigen.";
Mol. Biochem. Parasitol. 92:241-252(1998).
-!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-ancho
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SDSYPLFDGIFCS
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3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*

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Sequence 7, Application US/10057531A
Publication No. US20030161838A1
GENERAL INFORMATION:
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GENERAL INFORMATION.

APPLICANT: LYON, Jeffrey A.

APPLICANT: Angov, Evelina
TITLE OF INVENTION: Isolation and Purification of
TITLE OF INVENTION: Protein-142 Vaccine
FILE REFERENCE: 003/241/SAP
CURRENT APPLICATION NUMBER: US/10/057,531A
CURRENT FILING DATE: 2002-01-25
PRIOR APPLICATION NUMBER: US 60/264,535
PRIOR APPLICATION NUMBER: US 60/347,564
PRIOR FILING DATE: 2001-10-26
PRIOR FILING DATE: 2001-10-26
NUMBER OF SEQ ID NOS: 12
SOFTWARE: Apple Macintosh Microsoft Word 6.0
SEQ ID NO 7
LENGTH: 391
TYPE- PRT
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Matches 391; Conservative
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ORGANISM: Artificial sequence
FEATURE:
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APPLICANT: Lyon, Jeffrey A.

APPLICANT: Lyon, Jeffrey A.

APPLICANT: Appl. Cohen, Joe D.

APPLICANT: Voss, Gerald

ITILE OF INVENTION: Recombinant P. falciparum Merozoite Protein-142 Vaccine

FILE REFERENCE: 003/338/SAP

CURRENT APPLICATION NUMBER: US/10/057,532A

CURRENT FILING DATE: 2001-01-25

PRIOR APPLICATION NUMBER: US 60/264,535

PRIOR FILING DATE: 2001-01-26

PRIOR FILING DATE: 2001-10-26

NUMBER OF SEQ ID NOS: 12

SOFTWARE: Apple Macintosh Microsoft Word 6.0

SEQ ID NO 7

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Sequence 3, Application US/10057531A Publication No. US20030161838A1
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ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: E. coli expressed P. falciparum MSP-142 (3D7)
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GENERAL INFORMATION:

APPLICANT: Lyon, Jeffrey A.

APPLICANT: Lyon, Jeffrey A.

APPLICANT: Angov, Evelina

APPLICANT: Cohen, Joe D.

APPLICANT: Voss, Gerald

TITLE OF INVENTION: Recombinant P. falciparum Mei

FILE REFERENCE: 003/238/Sap

CURRENT APPLICATION NUMBER: US/10/057,532A

CURRENT APPLICATION NUMBER: US 60/264,535

PRIOR APPLICATION NUMBER: US 60/264,535

PRIOR FILING DATE: 2001-01-26

PRIOR APPLICATION NUMBER: US 60/347,564

PRIOR FILING DATE: 2001-10-26
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APPLICANT: Angov, Evelina
TITLE OF INVENTION: Isolation and Purification of P. fal
TITLE OF INVENTION: Protein-142 Vaccine
FILE REFERENCE: 003/241/SAP
CURRENT APPLICATION NUMBER: US/10/057,531A
CURRENT FILING DATE: 2002-01-25
PRIOR APPLICATION NUMBER: US 60/264,535
PRIOR APPLICATION NUMBER: US 60/347,564
PRIOR FILING DATE: 2001-01-26
PRIOR FILING DATE: 2001-10-26
PRIOR FILING DATE: 2001-10-26
PRIOR FILING DATE: 2001-10-26
NUMBER OF SEQ ID NOS: 12
NUMBER OF SEQ ID NOS: 12
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Publication No. US20030161839A1
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Best Local Similarity
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ORGANISM: Artificial sequence
FEATURE:
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Pred. No. 2.3e-125;
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                                                                                                                                           Merozoite
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Sequence 2, Application US/10057531A

Publication No. US20030161838A1

PublicANT: Lyon, Jeffrey A.

APPLICANT: Lyon, Jeffrey A.

APPLICANT: Angov, Evelina

TITLE OF INVENTION: Isolation and Purification of

TITLE OF INVENTION: Protein-142 Vaccine

FILE REFERENCE: 003/241/SAP

CURRENT APPLICATION NUMBER: US/10/057,531A

CURRENT FILING DATE: 2002-01-25

PRIOR APPLICATION NUMBER: US 60/264,535

PRIOR APPLICATION NUMBER: US 60/347,564

PRIOR APPLICATION NUMBER: US 60/347,564

PRIOR FILING DATE: 2001-10-26

NUMBER OF SEQ ID NOS: 12

SOFTWARE: Apple Macintosh Microsoft Word 6.0

SEQ ID NO 2

LENGTH: 431
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; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: E. coli ex
US-10-057-532A-3
                                                             ; OTHER INFORMATION: ; OTHER INFORMATION: US-10-057-531A-2
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 Query Match
Best Local Similarity
Matches 385; Conserv
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SOFTWARE: Apple MacIntosh Microsoft Word
SEQ ID NO 3
LENGTH: 393
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Best Local Similarity
                                                                                                            TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
                                                                                                                                                             LENGTH: 431
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97.0%;
ilarity 89.5%;
Conservative
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Sequence in pET(50)MSP1-42
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Pred. No. 2.3e-125;
0; Mismatches 1;
 Score 2008.5; DB 4;
Pred. No. 2.7e-122;
D; Mismatches 4;
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TITLE OF INVENTION: Recombinant P. falciparum Me:
FILE REFERENCE: 003/338/SAP
CURRENT APPLICATION UNMBER: US/10/057,532A
CURRENT FILING DATE: 2001-01-25
PRIOR APPLICATION NUMBER: US 60/264,535
PRIOR FILING DATE: 2001-01-26
PRIOR APPLICATION NUMBER: US 60/347,564
PRIOR APPLICATION NUMBER: US 60/347,564
PRIOR FILING DATE: 2001-10-26
NUMBER OF SEQ ID NOS: 12
SOFTWARE: Apple Macintosh Microsoft Word 6.0
SEQ ID NO 2
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; OTHER INFORMATION:
US-10-057-532A-2
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US-10-057-532A-2
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APPLICANT: Lyon, Jeffrey A.
APPLICANT: Angov, Evelina
APPLICANT: Cohen, Joe D.
APPLICANT: Voss, Gerald
                                                                                                    Query Match
Best Local S
Matches 385
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                                                                                                                                                                                                           ORGANISM: Artificial FEATURE:
                                                                                                                                                                                                                                           TYPE: PRT
                                                                                                                                                                                                                                                          LENGTH: 431
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TMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKYFLDV
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pET(50)MSP1-42
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89.5%;
                                                                                                    Score 2008.5; DB 4
Pred. No. 2.7e-122;
0; Mismatches 4;
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TMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKYFLDV

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US-10-057-531A-1
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US-10-057-531A-1
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TITLE OF INVENTION: Isolation and Purification of P. falciparum Merozoite
TITLE OF INVENTION: Protein-142 Vaccine
FILE REFERENCE: 003/241/SAP
CURRENT FILING DATE: 2002-01-25
PRIOR APPLICATION NUMBER: US 60/264,535
PRIOR APPLICATION NUMBER: US 60/264,535
PRIOR FILING DATE: 2001-01-26
PRIOR APPLICATION NUMBER: US 60/347,564
PRIOR APPLICATION NUMBER: US 60/347,564
PRIOR FILING DATE: 2001-10-26
SEQ ID NO: 12
SOFTWARE: Apple Macintosh Microsoft Word 6.0
SEQ ID NO: 1
LENGTH: 546
TYPE: DET
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Best Local (
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Local Similarity 89.5%; Pred. No. 3.6e-122;
hes 385; Conservative 0; Mismatches 4;
                                  142
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                       VLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETLYNNL
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APPLICANT: Lyon, Jeffrey A.

APPLICANT: Algov, Evelina

APPLICANT: Cohen, Joe D.

APPLICANT: Voss, Gerald

ITILE OF INVENTION: Recombinant P. falciparum Merozoite Protein-142 Vaccine

FILE REFERENCE: 003/238/Shp

CURRENT APPLICATION NUMBER: US/10/057,532A

CURRENT APPLICATION NUMBER: US 60/264,535

PRIOR APPLICATION NUMBER: US 60/264,535

PRIOR FILING DATE: 2001-01-26

PRIOR FILING DATE: 2001-10-26

INUMBER OF SEQ ID NOS: 12

SOFTWARE: Apple Macintosh Microsoft Word 6.0

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US-10-057-532A-1
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Best Local Similarity
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TYPE: PRT
ORGANISM: Artificial sequence
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                                                                                                          VNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKKLIND
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                                                  DTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCFENSGCFRHLDE 321
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REECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTKPDSY
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Pred. No. 3.6e-122;
0; Mismatches 4;
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APPLICANT: Lyon, Jeffrey A.

APPLICANT: Lyon, Jeffrey A.

APPLICANT: Angov, Evelina

TITLE OF INVENTION: Isolation and Purification of P.

TITLE OF INVENTION: Protein-142 Vaccine

FILE REFERENCE: 003/241/SAP

CURRENT APPLICATION NUMBER: US/10/057,531A

CURRENT FILING DATE: 2002-01-25

PRIOR APPLICATION NUMBER: US 60/264,535

PRIOR APPLICATION NUMBER: US 60/347,564

PRIOR FILING DATE: 2001-10-26

NUMBER OF SEQ ID NOS: 12

SOFTWARE: Apple Macintosh Microsoft Word 6.0

SEQ ID NO 5

LENGTH: 383

TYDE: DPT
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US-10-057-531A-5
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                                              Sequence 5, Application US/10057532A Publication No. US20030161839A1 GENERAL INFORMATION:
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APPLICANT: Lyon, Jeffrey A. APPLICANT: Angov, Evelina APPLICANT: Cohen, Joe D.
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                                                                                                                                                          CECTRODSYPLEDGIFCSS 383
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 376;
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Recombinant P. falciparum Merozoite Protein-142 Vaccine FILE REFERENCE: 003/238/SAP CURRENT FILING DATE: 2001-01-25 CURRENT FILING DATE: 2001-01-25 PRIOR APPLICATION NUMBER: US 60/264,535 PRIOR APPLICATION NUMBER: US 60/264,535 PRIOR FILING DATE: 2001-01-26 PRIOR PILING DATE: 2001-01-26 PRIOR APPLICATION NUMBER: US 60/347,564 PRIOR FILING DATE: 2001-10-26 NUMBER: US 60/347,564 PRIOR FILING DATE: 2001-10-26 NUMBER: US 60/347,564 PRIOR FILING DATE: 2001-10-26 NUMBER: US 60/347,564 PRIOR PILING DATE: 2001-10-26 NUMBER: US 60/347,564 PRIOR FILING DATE: 2001-10-26 NUMB
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TYPE: PRT
ORGANISM: Plasmodium falciparum 3D7
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CECTKPDSYPLFDGIFCSS 383
                                                                 CECTKPDSYPLFDGIFCSS 391
                                                                                                                                                                                                                     SGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKIT
                                                                                                                                                                                                                                                                                                                                      EAIKKLINDDTKKDMLGKLLSTGLVQIFPNTIISKLIEGKFQDMLNISQHQCVKKQCPEN
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                                                                                                                                                                 SGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKIT
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Pred. No. 1e-119;
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WS-09-978-756-3
US-09-978-756-3
Sequence 3, Application US/09978756
Patent No. US20020160017A1
GENERAL INFORMATION:
APPLICANT: Holder, Anthony
APPLICANT: Birdsall, Berry
APPLICANT: Feeney, James
APPLICANT: Worgan, William
APPLICANT: Syed, Shabih
TITLE OF INVENTION: Malaria Vaccine
FILE REFERENCE: 18396/1005
CURRENT APPLICATION NUMBER: US/09/978,756
CURRENT FILING DATE: 2001-10-16
PRIOR APPLICATION NUMBER: 09/311,817
PRIOR APPLICATION NUMBER: 09/311,817
PRIOR APPLICATION NUMBER: 0271,451
PRIOR FILING DATE: 1999-05-13
PRIOR APPLICATION NUMBER: 2,271,451
PRIOR FILING DATE: 1999-05-25
PRIOR APPLICATION NUMBER: 3,271,451
PRIOR APPLICATION NUMBER: 3,271,451
PRIOR APPLICATION NUMBER: 3,271,451
PRIOR FILING DATE: 1999-05-25
PRIOR APPLICATION NUMBER: 3,271,451
PRIOR FILING DATE: 1999-04-20
PRIOR APPLICATION NUMBER: 3,271,451
PRIOR FILING DATE: 1999-04-20
PRIOR FILING DATE: 1999-04-20

SOFTWARE: PatentIn version

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Sequence 2, Application US/10062809

| Sequence 2, Application US/1006281
| GENERAL INFORMATION:
| APPLICANT: Chang, Sandra P.
| APPLICANT: Chang, Sandra P.
| APPLICANT: Wishimura, Tani
| APPLICANT: Nishimura, Tani
| APPLICANT: Nishimura, Tani
| TITLE OF INVENTION: BACULOVIRUS PRODUCED PLASMODIUM FALCIPARUM VACCINE
| FILE REFERENCE: A-67984-1/RET/TAL/NBC
| CURRENT FILLING DATE: 2002-06-28
| PRIOR APPLICATION NUMBER: US/10/062,809
| CURRENT FILLING DATE: 2001-02-06
| PRIOR APPLICATION NUMBER: US 09/500,376
| PRIOR APPLICATION NUMBER: US 09/500,376
| PRIOR RILING DATE: 2001-02-01
| NUMBER OF SEO ID NOS: 79
| SOFTWARE: PatentIn version 3.1
| SEQ ID NO 2
| LENGTH: 394
| Type: PRT
| ORGANISM: Plasmodium falciparum
US-10-062-809-2
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                                                                                       Matches
                                                                                                   Query Match
Best Local Similarity
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                           HLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTK 360
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 FLDVLESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGIS 137
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                                                                                       Conservative
                                                                                   93.2%; Score 1931; DB 4; Length 394;
98.7%; Pred. No. 2.6e-117;
tive 1; Mismatches 4; Indels
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Sequence 2, Application US/10935793

Publication No. US20050037021A1

GENERAL INFORMATION:
APPLICANT: Chang, Sandra P.
APPLICANT: Hashimuto, Ann
APPLICANT: Hashimuto, Ann
APPLICANT: Nishimuta, Tani
ITILE OF INVENTION: BACULOVIRUS PRODUCED PLASMODIUM FALCIPARUM VACCINE
FILE REFERRNCE: A-67984-1/RFT/TAL/NBC
CURRENT APPLICATION NUMBER: US/10/935,793
CURRENT APPLICATION NUMBER: US/10/062,809
PRIOR APPLICATION NUMBER: US/0062,809
PRIOR APPLICATION NUMBER: US/00,376
PRIOR APPLICATION NUMBER: US/00,376
PRIOR PILING DATE: 2000-02-08
PRIOR FILING DATE: 2001-02-01

PRIOR FILING DATE: 2001-02-01

NUMBER OF SEQ ID NOS: 79

ROTANDED: NOS: 79

ROTANDED: NOS: 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 394
; TYPE: PRT
; ORGANISM: plasmodium falciparum US-10-935-793-2
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LINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFR 317
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RESULT 15
US-10-062-809-18
; Sequence 18, Application US/10062809
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Publication No. US20050095255A1
GENERAL INFORMATION:
APPLICANT: Chang, Sandra P.
APPLICANT: Kramer, Kenton J.
APPLICANT: Gosnell, William J.
APPLICANT: Nishimura, Tani
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Best Local S
Matches 369
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TYPE: PRT
TYPE: PRT
ORGANISM: plasmodium falciparum
:-10-925-385-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Baculovirus Produced Plasmodium Falciparum Vaccine FILE REFERENCE: A-67984-2
CURRENT APPLICATION NUMBER: US/10/925,385
CURRENT FILING DATE: 2004-08-24
PRIOR PILING DATE: 2000-02-08
PRIOR FILING DATE: 2000-02-08
PRIOR FILING DATE: 1994-02-14
PRIOR FILING DATE: 1994-02-14
PRIOR FILING DATE: 1994-04-13
NUMBER OF SEQ ID NOS: 16
SOFTWARE: Patentin version 3.3
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LENGTH: 396
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Best Local Similarity
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APPLICANT: Chang, Sandra P.
APPLICANT: Hashimoto, Ann
APPLICANT: Nishimota, Tani
TITLE OF INVENTION: BACULOVIRUS PRODUCED PLASMODIUM FALCIPARUM VACCINE
FILE REFERENCE: A-67984-1/RFT/TAL/NBC
CURRENT APPLICATION NUMBER: US/10/062,809
CURRENT FILING DATE: 2002-06-28
PRIOR APPLICATION NUMBER: US 09/500,376
PRIOR FILING DATE: 2000-02-08
PRIOR FILING DATE: 2000-02-08
PRIOR FILING DATE: 2001-02-01
NUMBER OF SEQ ID NOS: 79
SOPTMARE: Patentin version 3.1
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TKPDSYPLFDGIFCS 390
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                                                                                             FRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCEC 375
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98.1%;
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Pred. No. 4.1e-117;
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Search completed: May 5, 2006, 00:29:05 Job time: 169 secs THIS PAGE IS BLANK

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Post-processing: Minimum Match 0%
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Listing first 45 summaries
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1: /SIDSS/ptodata/2/pubpaa/USO8 NEW PUB.pep1:*

2: /SIDSS/ptodata/2/pubpaa/USO8 NEW PUB.pep:*

3: /SIDSS/ptodata/2/pubpaa/USO7 NEW PUB.pep:*

4: /SIDSS/ptodata/2/pubpaa/USO8 NEW PUB.pep:*

5: /SIDSS/ptodata/2/pubpaa/USO8 NEW PUB.pep:*

6: /SIDSS/ptodata/2/pubpaa/USO9 NEW PUB.pep:*

6: /SIDSS/ptodata/2/pubpaa/USO9 NEW PUB.pep:*

7: /SIDSS/ptodata/2/pubpaa/USO9 NEW PUB.pep:*

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Copyright (c) 1993 - 2006 Biocceleration Ltd
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11 US-11-144-833-14

11 US-11-144-833-14

11 US-11-144-833-14

11 US-11-037-243-65-2964

9 US-10-240-771A-2

9 US-10-240-771A-2

11 US-11-096-568A-29300

US-10-93-626-1358

11 US-11-165-819-6

11 US-11-165-819-6

11 US-11-165-819-26

12 US-11-165-819-26

13 US-11-165-819-26

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18 US-11-165-819-26
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Sequence 12, Appl
Sequence 11, Appl
Sequence 10, Appl
Sequence 2, Appli
Sequence 2, Appli
Sequence 4, Appli
Sequence 65, Appli
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Sequence 2964, Appli
Sequence 20, Appli
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Sequence 214, App
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US-11-087-099-12273	US-10-976-933-8	US-10-453-372-256	US-10-485-517-244	US-11-188-298-4701	US-10-793-626-3154	US-11-051-453-41	US-11-128-059-96	US-11-128-059-94	US-11-128-059-76	US-10-453-372-228	US-11-128-059-74	US-11-128-059-80	US-11-128-059-82	US-10-453-372-254	US-10-453-372-252	US-11-128-059-4	US-11-128-059-92	US-11-098-686-10232	US-10-511-096-8	US-10-511-096-6	US-10-511-096-4	US-10-511-096-2
0	Sequence 8, Appli	Sequence 256, App	Sequence 244, App	Sequence 4701, Ap			Sequence 96, Appl	Sequence 94, Appl	Sequence 76, Appl	Sequence 228, App	•	Sequence 80, Appl	Sequence 82, Appl	Sequence 254, App	Sequence 252, App	Sequence 4, Appli	Sequence 92, Appl	Sequence 10232, A	Sequence 8, Appli	Sequence 6, Appli	Sequence 4, Appli	Sequence 2, Appli

ALIGNMENTS

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Sequence 12, Application US/11144833

| Publication No. US20060018932A1
| GENERAL INFORMATION:
| APPLICANT: LONGACRE-ANDRE, SHIRLEY
| APPLICANT: LONGACRE-ANDRE, SHIRLEY
| APPLICANT: LONGACRE-ANDRE, SHIRLEY
| APPLICANT: NATO, FARIDABANO
| APPLICANT: MENDIS, KAMINI
| TITLE OF INVENTION: OF PLASMODIUM MSP-1
| FILE REFERENCE: 0660-0139-0XPCT
| CURRENT FILING DATE: 2005-06-06
| PRIOR APPLICATION NUMBER: US/11/144,833
| CURRENT FILING DATE: 1999-03-10
| PRIOR APPLICATION NUMBER: US/99/125,031
| PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 1997-02-14
| PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 1996-02-14
| PRIOR FILING DATE: 1996-02-14
| PRIOR FILING DATE: 1996-02-14
| SOFTWARE: Patentin version 3.1
| SEQ ID NO 12
| LENGTH: 380
| TYPE: PRT
| ORGANISM: Plasmodium vivax-like sp.
| US-11-144-833-12
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Best Local
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142 AVNEEVKKVEADIKAEDDKIKKIGSDSTKTTEKTQSMAKKAELEKYLPFLNSLQKEYESL 201
                                       151 ---ESIKKV---IKEEKEKFPSSPPTTPPSPAKTDEQKKES---KFLPFLTNIETLYNNL 201
                                                                                               82 SPSGEYIIKDPYKLLDLEKKKKLLGSYKYIGASIDKDLATANDGVTYYNKMGELYKTHLT 141
                                                                                                                                                                                                                        92 ISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGISYYEKVLAKYKDDL- 150
                                                                                                                                                                                                                                                                                                                          h 38.0%; Score 788; DB 11; Length 380; Similarity 43.0%; Pred. No. 1.4e-39;
                                                                                                                                                                                                SDYDVVYLKPLAGMYKTIKKOLENHVNAFNTNITDMLDSRLKKRNYFLEVLNSDLNPFKY 81
                                                                                                                                                                                                                                                                                                     76; Mismatches 113;
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APPLICANT: MENNIS, KAMINI
TITLE OF INVENTION: RECOMBINANT PROTEIN CONTAINING A C-TERMINAL FRAGMENT
TITLE OF INVENTION: OF PLASMODIUM MSP-1
FILE REFERENCE: 0660-0139-0XPCT
CURRENT APPLICATION NUMBER: US/11/144,833
CURRENT FILING DATE: 2005-06-06
PRIOR APPLICATION NUMBER: US/09/125,031
PRIOR APPLICATION NUMBER: PCT/FR97/00290
PRIOR APPLICATION NUMBER: PCT/FR97/00290
PRIOR FILING DATE: 1999-03-10
PRIOR FILING DATE: 1997-02-14
PRIOR APPLICATION NUMBER: FCT/FR97/00290
PRIOR FILING DATE: 1996-02-14
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PatentIn version 3.1
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Matches
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Best Local
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APPLICANT: ROTH, CHARLES
APPLICANT: NATO, FARIDABANO
APPLICANT: BARNWELL, JOHN
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155; Conservative
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   PENSGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRK 369
                                                                                              DFEAIKKLINDDTKKDMLGKLLSTGLV-QNFPNTIISKLIEGKFQDMLNISQHQCVKKQC 309
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                                                                                                                                                                                                                                                                                                      ISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGISYYEKVLAKYKDDLE 151
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                                                            --KSEKK--NEVKSSGLLEKLMKSKLIKENESKEILSQLLNVQTQLLTMSSEHTCIDTNV 303
                                                                                                                               LNSLQKEYESLVSKVNTYTDNLKKVINNCQLEKKBAEITVKKLQDYNKMDEKLEEYK---
                                                                                                                                                                     LINIETLYNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPY 250
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                                                                                                                                                                                                                                                                                                                                                                                                                            37.5%; Score 777; DB 11; 40.7%; Pred. No. 6.2e-39; ative 78; Mismatches 104;
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RESULT 4
US-11-144-833-10
; Sequence 10, Application US/11144833
; Publication No. US20060018932A1
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; LENGTH: 379
; TYPE: PRT
; ORGANISM: Plasmodium
US-11-144-833-11
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US-11-144-833-11
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TITLE OF INVENTION: RECOMBINAT PROTEIN CONTAINING A C-TERMINAL FRAGMENT
TITLE OF INVENTION: OF PLASMODIUM MSP-1
FILE REFERENCE: 0660-0139-0XPCT
CURRENT APPLICATION NUMBER: US/11/144,833
CURRENT FILING DATE: 2005-06-06
PRIOR APPLICATION NUMBER: US/09/125,031
PRIOR APPLICATION NUMBER: US/09/125,031
PRIOR APPLICATION NUMBER: PS/03-10
PRIOR APPLICATION NUMBER: PS/03-10
PRIOR APPLICATION NUMBER: PCT/FR97/00290
PRIOR PILING DATE: 1997-02-14
PRIOR PILING DATE: 1996-02-14
PRIOR FILING DATE: 1996-02-14
NUMBER: OF SEO ID NOS: 15
COUNTY OF THE PRIOR OF THE PRIOR PRIO
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APPLICANT:
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GSEPLFEGVFCS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VNKVHSYTDTLKKIINNCQIEKKETETIVNKLEDYSKMDEELDVYKQS-----KK--ED
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NATO, FARIDABANO
BARNWELL, JOHN
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41.9%; Pred. No. 2e-36;
tive 74; Mismatches 1
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                                                                                                                                                                    -KNEIVCKCTKE 367
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GENERAL INFORMATION:

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APPLICANT: MENDIS, KAMINI
TITLE OF INVENTION: RECOMBINANT PROTEIN CONTAINING A C-TERMINAL FRAGMENT
TITLE OF INVENTION: OF PLASMODIUM MSP-1
FILE REFERENCE: 0660-0139-0XPCT
CURRENT FILING DATE: 2005-06-06
PRIOR APPLICATION NUMBER: US/11/144,833
CURRENT FILING DATE: 1999-03-10
PRIOR APPLICATION NUMBER: PCT/FR97/00290
PRIOR FILING DATE: 1997-02-14
PRIOR FILING DATE: 1996-02-14
PRIOR FILING DATE: 1996-02-14
NUMBER OF SEQ ID NOS: 15
SOFTWARE: Patentin version 3.1
Query Match
Best Local Similarity 5
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                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: 0660-0139-0XPCT
CURRENT APPLICATION NUMBER: US/11/144,833
CURRENT FILING DATE: 2005-06-06
PRIOR APPLICATION NUMBER: US/09/125,031
PRIOR FILING DATE: 1999-03-10
PRIOR APPLICATION NUMBER: PCT/FR97/00290
PRIOR FILING DATE: 1997-02-14
PRIOR APPLICATION NUMBER: FR96/01822
PRIOR APPLICATION NUMBER: FR96/01822
PRIOR FILING DATE: 1996-02-14
                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 15
SOFTWARE: Patentin version 3.1
SEQ ID NO 5
LENGTH: 116
TYPE: PRT
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APPLICANT: ROTH, CHARLES
APPLICANT: NATO, FARIDABANO
APPLICANT: MATO, FARIDABANO
APPLICANT: MENDIS, KAMINI
TITLE OF INVENTION: RECOMBINANT PROTEIN CONTAINING A C-TERMINAL FRAGMENT
TITLE OF INVENTION: OF PLASMODIUM MSP-1
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TYPE: PRT
ORGANISM: Plasmodium falciparum
                                                                                                                                                  OTHER INFORMATION: SYNTHETIC
                                                                                                                                                                      ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Match 25.4%;
Local Similarity 94.8%;
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                              Conservative
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                                                  25.4%;

    Mismatches

                           Score 527; DB 11; Length 116;
Pred. No. 8.5e-25;
1; Mismatches 2; Indels
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Pred. No. 7.8e-25;
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APPLICANT: ROTH, CHARLES
APPLICANT: NATO, FARIDABANO
APPLICANT: MANO, FARIDABANO
APPLICANT: BARNWELL, JOHN
APPLICANT: MENDIS, KAMINI
TITLE OF INVENTION: RECOMBINANT PROTEIN CONTAINING A C-TERMINAL FRAGMENT
TITLE OF INVENTION: OF PLASMODIUM MSP-1
FILE REFERENCE: 0660-0139-0XPCT
CURRENT APPLICATION NUMBER: US/11/144,833
CURRENT FILING DATE: 2005-06-06
PRIOR APPLICATION NUMBER: US/09/125,031
PRIOR APPLICATION NUMBER: US/09/125,031
PRIOR APPLICATION NUMBER: PCT/FR97/00290
PRIOR FILING DATE: 1999-03-10
PRIOR FILING DATE: 1997-02-14
PRIOR FILING DATE: 1997-02-14
PRIOR FILING DATE: 1996-02-14
PRIOR FILING DATE: 1996-02-14
NUMBER: PATENTAL THE PRIOR PRIOR FILING DATE: 1996-02-14
NUMBER: PATENTAL THE PRIOR PRIOR PRIOR SEQ ID NOS: 15
SOFTWARE: Patentin version 3.1
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APPLICANT: LONGACRE-ANDRE, SHIRLEY
APPLICANT: ROTH, CHARLES
APPLICANT: NATO, FARIDABANO
APPLICANT: NATO, FARIDABANO
APPLICANT: MENDIS, KAMINI
APPLICANT: MENDIS, KAMINI
TITLE OF INVENTION: RECOMBINANT PROTEIN CONTAINING A C-TERMINAL FRAGMENT
TITLE OF INVENTION: OF PLASMODIUM MSP-1
TILE REFERENCE: 0660-0139-0XPCT
CURRENT FILING DATE: 2005-06-06
PRIOR APPLICATION NUMBER: US/11/144,833
CURRENT FILING DATE: 1999-03-10
PRIOR APPLICATION NUMBER: US/09/125,031
PRIOR APPLICATION NUMBER: US/09/125,031
PRIOR APPLICATION NUMBER: DCT/FR97/00290
PRIOR FILING DATE: 1997-02-14
PRIOR FILING DATE: 1997-02-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 95
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: SYNTHETIC
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Similarity 96.8%;
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Pred. No. 1.2e-24;
1; Mismatches 2;
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; PRIOR FILING DATE: 1996-02-14; NUMBER OF SEQ ID NOS: 15; SOFTWARE: PatentIn version 3.1; SEQ ID NO 8; LENGTH: 127; TYPE: PRT; ORGANISM: Plasmodium falciparum US-11-144-833-8
                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: US/09/125,031
PRIOR FILING DATE: 1999-03-10
PRIOR FILING DATE: 1997-03-14
PRIOR FILING DATE: 1997-02-14
PRIOR FILING DATE: 1997-02-14
PRIOR APPLICATION NUMBER: FR96/01822
PRIOR FILING DATE: 1996-02-14
PRIOR FILING DATE: 1996-02-14
NUMBER OF SEQ ID NOS: 15
SOFTWARE: Patentin version 3.1
SEQ ID NO 14
ENOTH: 281
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                                                                                                                                                                                                                                                                                                         Query Match 20.5%; Score 424.5; DB 1
Best Local Similarity 35.7%; Pred, No. 2.7e-18;
                                                                                                                                                                                                                                                                                        Matches
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TITLE OF INVENTION: RECOMBINANT PROTEIN CONTAINING A C-TERMINAL FRAGMENT
TITLE OF INVENTION: OF PLASMODIUM MSP-1
FILE REFERENCE: 0660-0139-0XPCT
CURRENT APPLICATION NUMBER: US/11/144,833
CURRENT FILING DATE: 2005-066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: LONGACRE-ANDRE, SHIRLEY
APPLICANT: ROTH, CHARLES
APPLICANT: NATO, FARIDABANO
APPLICANT: BARNWELL, JOHN
                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                       153 IKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETL---YNNLVNKIDDYL
                                                                                                                                                                                                                                                                                      131;
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                            INLKAKINDCNVEKDEAHVKITKLSDLKAIDDKID-LFKNPYDFEAIKKLINDDTKKDML
                                                                                                                                                              SSNªYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGISYYEKVLAKYKDDLES 152
                                                                                                                                         PSGEYIIKDPYKLLDLEKKK--LGSYKYIGASDDT----ANDG--YYKMGLYKH-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KCTEEDSGSNGKKITCECTKPDSYPLFDGIFCS 127
 ----KKINNCQEKKEEV---
                                                                     ---LVKVEID-
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larity 96.8%;
Conservative
                                                                                                                                                                                                                                                                                        55; Mismatches
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Pred. No. 1.6e-24;
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 ----KLDYKMDELYKS---
                                                                       KKGKAKKELKYLPFLSQKEYLVKVYTDL.
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APPLICANT: SUDARSANAM, SUCHA
TITLE OF INVENTION: NOVEL PROTEASES
FILE REFERENCE: 038602/1214
CURRENT APPLICATION NUMBER: US/11/037,243
CURRENT FILING DATE: 2005-05-26
PRIOR APPLICATION NUMBER: US/09/888,615
PRIOR FILING DATE: 2001-06-26
PRIOR FILING DATE: 2001-06-26
PRIOR FILING DATE: 2001-06-26
PRIOR FILING DATE: 2000-06-26
VANDBER OF SEQ ID NOS: 150
SOFTWARE: PATENTIN VET: 2.1
SEQ ID NO 65
LENGTH: 980
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US-11-037-243-65
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APPLICANT: WHYTE, DA
APPLICANT: CAENEPEBI
APPLICANT: CHARYDCZZ
APPLICANT: MANNING,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 20.9%;
Matches 77; Conservative 6
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                                                                          596
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                                  363
                                                                                                                                                                                                                                                                   197 LYNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFE-AI 255
                                                                                                                                                                                                                                                                                                                                                                                      387 RRFAHLLVKK------DICNSETKKDLLK-----KVKNAISATAERFSGYMQNDAHE 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 341 LQGFSNLGNTCYM------NAILQSLFSLQSFANDLLKQGIPWKKIPLNAL---I 386
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                                                                                                                                                                                                                                                                                                                                                                                                             87 MQFKHISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGISYY----- 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27 LSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKYFLDVLESDL 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WHYTE, DAVID
CAENEPEEL, SEAN
CHARYDCZAK, GLEN
MANNING, GERARD
                                                                      TENTKPPFTLGWSAHMAMSRPLKA----SQMVNSCITSPSTPSKKFTFKSKSSLALCLDS 651
                                                                                                                                                                                       KK-----LINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQC 309
                                                                                                                                                                                                                                                                                                          FLSQCLDQLKEDMEKLNKTWKTEPVSGEENSPDISATRAYT------CPVITNLEFE 483
                                  DSGSSRKK 370
                                                                                                            PENS-----GCFRHLDEREECKCLLNYKQEGDKCVENPN-PTCNENNGGCDADATCTEE 362
                                                                                                                                                                                                                             VQHSIICKACGEIIPKREQFNDLSIDLPRRKKPLPP----RSIQDSLDLFFRAEELEYSC 539
                                                                                                                                                                                                                                                                                                                                              --EKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIE-T 196
DSEDELKR 659
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                                                                                                                                                     EKCGGKCALVRH--KFNRLPRVLILHLKRYSFNVALS--LNNKIGQQVIIPRYLTLSSHC 595
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              154; Indels
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Sequence 2964, Application US/10793626

Publication No. US2005025478A1

GENERAL INFORMATION:
APPLICANT: KIMMERLY, WILLIAM JOHN
TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND FILE REFERENCE: PUJ480US
CURRENT APPLICATION NUMBER: US/10/793,626
CURRENT APPLICATION NUMBER: US/10/793,626
CURRENT FILING DATE: 2004-03-04
PRIOR APPLICATION NUMBER: 60/164,258
PRIOR APPLICATION NUMBER: 60/164,258
PRIOR APPLICATION NUMBER: 05/164,258
PRIOR APPLICATION NUMBER: 50/164,258
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US-10-240-771A-2
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; LOCATION: (5024)
; OTHER INFORMATION: variable amino acid
US-10-793-626-2964
                                                                                                                                   US-10-240-771A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-793-626-2964
                                                                                                                                                                                                                                                   TITLE OF INVENTION: New protein with poly
FILE REFERENCE: hupolybromolobws
CURRENT APPLICATION NUMBER: US/10/240,771A
CURRENT FILING DATE: 2002-10-04
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/10240771A
Publication No. US20060036074A1
GENERAL INFORMATION:
APPLICANT: Merck Patent GmbH
Query Match 6.1%;
Best Local Similarity 20.1%;
Matches 66; Conservative 63
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Best Local Similarity
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                                                                                                                                                           TYPE: PRT
ORGANISM: Homo
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                                                                                                                                                                                                                              LENGTH: 1633
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  215 KINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKKLINDDTKKDMLGKLLST 274
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GLVQNFPNTIISKLIEGK--FQDMLNISQHQCVKKQCPENS 313
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      63;
Score 126.5; D
Pred. No. 8.7;
63; Mismatches
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      104;
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                                                            Length 1633;
      Indels
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   95;
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      17;
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TITLE OF INVENTION: Genes and Uses for Plant Imperior of Invention (Genes and Uses for Plant Imperior of Invention (Genes and Uses for Plant Imperior of Invention Invention (Genes in Invention Inventor Invention Invention Inventor Inve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 10455, Application US/11087099 Publication No. US20060041961A1 GENERAL INFORMATION:
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353 CDADATCTEEDSGSSRKKITCECTK---PDSYPLFD 385
                                                                                                                                                                                                                                  352
                                                                                                                                                                                                                                                                                              255 IKKLINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQC-----
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                                                                                                                                                                                                                              RKKCLK-DLPKDLQKKVLAKESVK------AYLDCVSQAKNEAEKKECEKLLT
                                                                                                                                                                                                                                                                                                                                                               LEEAKKSVKÄYL-DCVSQAKTEDEKKECEKLLTPEARKLLEQQA-----LDCLKNAKTDEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EKLLTPEAKKLLEEEAKESVKAYLDCV--SQAKTEAEKKECEKL-----LTPEARKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----SIKKVIKEE-KEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETLYNNLVNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EAEKKECEKLITPEAK--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGISYYEKVLAKYKDDLE----
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                                                                                                     PEARKLLEEAKESIKAYKDCVSKARNEKEKKECEKLLT---PEAKKLLE--
                                                                                                                                                                                                                                                                                                                                                                                                                        IDDYLINLKAKINDC-----NVEKDEAHVKIT----KLSDLKAIDDKIDLFKNPYDFEA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NNLVNKID-----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGI-----SYYEKVLAK 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6.1%; Score 126; 1
22.2%; Pred. No. 4;
                                                                                                                                                                  -- NSGCF----RHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  69; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ---KLLEEE-----AKESVKAYLDCVSQAKTEAEKKEC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  119;
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Length 807; Indels

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RESULT 14
US-10-793-626-1358
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Sequence 1358, Application US/10793626

Publication No. US2005025478A1

GENERAL INFORMATION:
APPLICANT: KIMMERLY, WILLIAM JOHN

TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS

FILE REFERENCE: PUJ4880US

CURRENT APPLICATION NUMBER: US/10/793,626

CURRENT FILING DATE: 2004-03-04

PRIOR APPLICATION NUMBER: 60/164,258

PRIOR APPLICATION NUMBER: 60/164,258

PRIOR FILING DATE: 1999-11-09

NUMBER OF SEQ ID NOS: 4472

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 1358
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TITLE OF INVENTION: Sequence-Determined DNA Fragments and
TITLE OF INVENTION: Therby
FILE REFERENCE: 2750-1592FUS2
CURRENT APPLICATION NUMBER: US/11/096,568A
CURRENT FILING DATE: 2005-04-01
NUMBER OF SEQ ID NOS: 34471
SEQ ID NO 29300
LENGTH: 1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 29300, Application US/11096568A Publication No. US20060048240A1 GENERAL INFORMATION:
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Arabidopsis thaliana
FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(1054)
OTHER INFORMATION: Ceres Seq. ID no.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122 LSVANEEIVTKEALVKQHSKVAEDAVSGWEKADAEALALKNTLESVTLSKLTAEDRAAHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          106 LNSEQK--NTLLKSYKYIKESVENDIKFAQEGISYYEKVLAKYKDDLESIKKVIKEEKEK 163
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1 Similarity 18.9%;
77; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QDMLNISQHQCVKKQCPENSGCFRHLDE-----REECKCLLNYKQEGDKCVENPNPTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LSRTLQE--RSNMLVKVSEEKSRADAEIETLKSNLEMCEREIKSLKYEVHVVSKELE---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IKKLINDDTKKDMLGKL-------LSTGLVQ-----NFPNTIISKLIEGKF
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                                                                                                                                                                                                                                                                                                                                                                                          LAQMKLEVENLG------RDSGDARQKRSPVKVSSPCKSPGGY
                                                                                                                                                                                                                                                                                                                                                                                                                                        -----NENNGGCDADATCTEEDSGSSRK-----KITCECTKPDSY 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DGALKECMRQIRNLKKDHEVKLHDVALSKTKQIEKMTMEFEKRMCDYEQELLRSAADSDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KAKINDC-----NVEKD-EAHVKITKLSDLKAI------DDKIDLFKNPYDFEA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -- IRNEEKNMCIRSAESANK---QHLEGVKKIAKLEAECQRLRSLVRK----
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Pred. No. 5.
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FEATURE:
FAMME/KEY: unsure
LOCATION: (1)..(1927)
CTHER INFORMATION: unsure at all Xaa locations
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OTHER INFORMATION:
US-10-793-626-1358
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US-11-087-099-5472
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Publication No. US20060041961A1
GENERAL INFORMATION:
APPLICANT: Abad, Mark S. et al.
TITLE OF INVENTION: Genes and Uses for Planette OF INVENTION: Genes and Uses for Planette OF THE REFERENCE: 38-21 (53450) B EP
CURRENT APPLICATION NUMBER: US/11/087,099
CURRENT FILING DATE: 2005-03-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 5472
LENGTH: 1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 583
TYPE: PRT
                                                                                                    168
                                                                                                                                              184
                                                                                                                                                                                                                                       149 DLESIKKVI-----KEEKEKFPSSPPTTPP------SPAKTDEQKK 183
                                                                                                                                                                                                                                                                                   785
                                                                                                                                                                                                                                                                                                                             102 SFKLLNSEQKNTL-----LKSYKYIKE-----SVENDIKFAQEGISYYEKVLAKYKD 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 215
                                                                                                                                                                                                                                                                                                                                                                         744 KKECEK------ARNEKEKKLEEAKKSVKAYLDCVSR-----ARNEKEKKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    487 TLIDLNDKKD----FVNEIKSAMSIGDTCPICGNEIHSLGEHIDFESIAQKNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   394 EIKRLYSEYNDLITKKEELTKEMNNKNKDFA-----IIEHYTEEIYKLKKIIDE--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          340 YHNEIKGFOKOLEHLSTRENEITOFNOYLEKNOVFFNOLD-----KIISSYQQKPVIEE 393
                                                                                                                                                                                                                                                                                                                                                                                                                 50 KKQIEKNIFTFNLNLNDILNSRLKKR------KYFLDVLESDLMQFKHISSNEYIIED 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 46 YRSLKKQIEKNIFTFNLNLNDI--LNSRLKKRKYFLDVLESDLMQFKHISSNEY--IIED 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                52;
                                                                                                                                                                                                                                                                                 CEKLLTPEAKKLLEQQALDCLKNAKTDKERKKCLKDLPKDLQ-----KKVLAK---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNP-----YDFEAIKKLIN 260
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              KAYLDCVSQAKTEAEKKECEKLLTPEAKKLLEQQA----LDCLKNA-KTEADKKRCVKDL
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                                                        ----DC-----NVEKDEAHVKIT----KLSDLKAIDDKIDLFKNPYDFEAIKKLINDDT 263
                                                                                               ECEKLLTPEARKLLEEXAKESVKAYLDCVSQAKNEAEKKECEKLLTLESKKKLEEAKKSV
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21.3%; Pred. No. 16
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	Plasmodiu		ADZ72133	9	394	ũ	w	25

ALIGNMENTS

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RESULT 1
ABB79627
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Peptide
                                                                                                                                                                                                                             Synthetic.
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                                                                                             Lyon
                                                                                                                        26-JAN-2001; 2001US-0264535P.
                                                                                                                                     25-JAN-2002; 2002WO-US002554.
                                                                                                                                                   01-AUG-2002.
                                                                                                                                                                 WO200258727-A2.
                                                                                                                                                                                     Protein
                                                                                                                                                                                                                        Chimeric
                                                                                                                                                                                                                                    Plasmodium
                                                                                                                                                                                                                                                  Merozoite surface protein-1; MSP-1; malaria; vaccine; protozoacide
                                                                                                                                                                                                                                                               Plasmodium falciparum MSP-1(42) recombinant protein.
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                                                                        2002-590798/63.
DB; ABN84474.
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18. .391
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                                                                                                                                                                               "MSP-1 (42) "
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The present sequence is that of a recombinant protein comprising the Plasmodium falciparum 3D7 merozoite surface protein-1 42 kDa fragment (MSp-1(42)) with an N-terminal (His)6 tag and linker. Recombinant PSP-1(42) protein was produced as a soluble protein in Escherichia coli ho

Disclosure;

Page

98-99; 99pp;

English

N-PSDB;

New vaccine comprising Plasmodium falciparum MSP-142 protein and an adjuvant, useful against malaria or for eliciting immune responses against P. falciparum.

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RESULTA
ABB71127
ID AB
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           Lyon JA,
                                                                         29-JAN-2001; 2001US-0264535P.
26-OCT-2001; 2001US-0347564P.
                                                                                                                        25-JAN-2002; 2002WO-US002428
                                                                                                                                                          16-JAN-2003
                                                                                                                                                                                        WO2003004525-A2
                                                                                                                                                                                                                        Plasmodium
                                                                                                                                                                                                                                                    MSP-1_42; merozoite protein; protozoacide; vaccine; malaria; mosquito
                                                                                                                                                                                                                                                                                  E. coli expressed P. falciparum MSP1_42 (3D7) protein sequence.
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                                           (REED-) REED ARMY INST RES WALTER.
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Pred. No. 1.7e-140;
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                                                                                                                                                                                    E. coli expressed Plasmodium
                                                                                                                                                                                                                03-JUN-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New recombinant Plasmodium falciparum merozoite protein (MSP)-142 which retains its native folding, useful for detecting and preventing malaria infection, and for antibody production.
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Pred. No. 1.7e-140;
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29-JAN-2001; 2001US-0264535P 25-JAN-2002; 2002US-00057532. US2003161839-A1. Plasmodium falciparum

28-AUG-2003

Malaria; vaccine; merozoite surface protein-142; MSP-142; immune response; diagnosis.

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(ANGO/)
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            Merozoite
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                                 coli expressed P. falciparum MSP-1 recombinant protein.
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KYIKESVENDIKFAQEGISYYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKT TFNLNLNDILNSRLKKRKYFLDVLESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSY TFNLNLNDILNSRLKKKKYFLDVLESDLMQFKHISSNEYIIEDSFKLLNSBQKNTLLKSY 118 MAHHHHHPGGSIEGRGTMAISVTMDNIL9GFENEYDVIYLKPLAGVYRSLKKQIEKNIF

180 178 120

DEOKKESKFLPFLTNIETLYNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKA KYIKESVENDIKFAQEGISYYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKT

LPFLTNIETLYNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKA

61 59 \mathbf{L} \vdash

MAHHHHHPGGS--GSGTMAISVTMDNILŚGFENEYDVIYLKPLAGVYRSLKKQIEKNIF

60

361 359 301 299 241 239 181 179 121

CTEEDSGSSRKKITCECTKPDSYPLFDGIFCSS

391

ISQHQCVKKQCPENSGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADAT

ISQHQCVKKQCPENSGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADAT

360 358 300 298 240 238

IDDKIDLFKNPYDFEAIKKLINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLN

IDDKIDLFKNPYDFEAIKKLINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLN

CTEEDSGSSRKKITCECTKPDSYPLFDGIFCSS

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Query Match
Best Local S
Matches 390
                                                                                                           The present sequence is that of a recombinant protein comprising Plasmodium falciparum 3D7 merozoite surface protein-1 42 kDa fragment (MSP-1(42)) with an N-terminal (His)6-tag for affinity purification and 3 linker amino acids. The levels of expression of the recombinant protein, encoded by plasmid pET-IEGR-42(AT), were 2-5% of total E. coli protein, and the protein was correctly folded based on immunoreactivity with a series of MSP-1(19) specific monoclonal antibodies. The present invention relates to the production of large amounts of MSP-1(42) which maintain conformational epitopes critical for development of vaccines. The vaccines are useful against malaria or for eliciting immune responses against P. falciparum. The recombinant MSP-1(42) proteins are useful in diagnostic assays, for in vitro monitoring of malaria infection or prognosing the response to treatment of malaria patients, and for production of antibodies used for malaria antigen detection or as
                                                                                                                                                                                                                                                                                                                                                                                           New vaccine comprising Plasmodium falciparum MSP-142 protein and anadjuvant, useful against malaria or for eliciting immune responses against P. falciparum.
                                                                Sequence 393
                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 92-93; 99pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-590798/63.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-JAN-2002; 2002WO-US002554.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-AUG-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
Chimeric.
                                                                                               therapeutic or prophylactic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plasmodium falciparum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (REED-)
390;
                 Similarity
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Conservative
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             99.2%;
<u>.</u>
                                                                                                agents
Score 2055; DB 5;
Pred. No. 2.4e-139;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                    English.
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                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 390
                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to a recombinant Plasmodium falciparum merozoite protein, (MSP)-1 42 which retains its native folding. The protein is useful as a diagnostic reagent, in antibody production, and as a vaccine against malaria. The antibody may also be used for detecting and treating chronic malaria infection. The present sequence represents a recombinant E. coli expressed P. falciparum MAP-1_42 protein expressed in clone
                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New recombinant Plasmodium falciparum merozoite protein (MSP)-142 which retains its native folding, useful for detecting and preventing malaria infection, and for antibody production.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 96-97; 104pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-JAN-2001;
26-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-221577/21.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABP71273 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (REED-) REED ARMY INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-JAN-2002; 2002WO-US002428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Plasmodium falciparum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MSP-1_42; merozoite protein; protozoacide; vaccine; malaria; mosquito
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         falciparum MSP1_42
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                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                            МАНННННРGGS--GSGTMAISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIF 58
ISQHQCVKKQCPENSGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADAT
                                                         IDDKIDLFKNPYDFEAIKKLINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLN
                                                                                                            DEQKKESKFLPFLTNIETLYNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKA 238
                                                                                                                                                                  KYIKESVENDIKFAQEGISYYEKVLAKYKDDLESIKKVIKEEKEKFFSSPPTTPPSPAKT 178
                                                                                                                                                                                                                         TFNLNLNDILNSRLKKRKYFLDVLESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSY 118
                                                                                                                                                                                                                                                              MAHHHHHHPGGSIEGRGTMAISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIF
                                                                                                                                                                                                                                                                                                                                                                         393
                                                                                                                                                    KYIKESVENDIKFAQEGISYYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKT
                                                                                                                                                                                                         TFNLNLNDILNSRLKKRKYFLDVLESDLMQFKHISSNEYITEDSFKLLNSEQKNTLLKSY
                                          IDDKIDLFKNPYDFEAIKKLINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLN
                                                                                               DEQKKESKFLPFLTNIETLYNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKA
                                                                                                                                                                                                                                                                                                                    Conservative
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2001US-0347564P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                               99.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (307)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein
                                                                                                                                                                                                                                                                                                                   Score 2055; DB 6;
Pred. No. 2.4e-139;
0; Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence in clone pET42A
                                                                                                                                                                                                                                                                                                                                              Length 393;
                                                                                                                                                                                                                                                                                                                     Indels
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DE PET4
XX Mala
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                                                                                                                                                                                                                                                                                                                                     Query Match
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Matches 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to a malaria vaccine which comprises Plasmodium falciparum merozoite surface protein-142 (NSP-142), and an adjuvant consisting of A, B, C, D, and E. The invention also relates to a method for inducing protective immune response to malaria. The invention is used as diagnostic reagent for antibody production or as vaccine against malaria infection. The present sequence is Escherichia coli expressed P. falciparum MSP142 (3D7) protein sequence in pET42A. This sequence is used to illustrate the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Malaria vaccine comprises -142.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (LYON/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Malaria; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pET42A Plasmodium
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-843522/78
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26-OCT-2001; 2001US-0347563P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-JUN-2004
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                                                                                                                                                                                                                                                                                                                                        390;
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ANGOV E.

COHEN J D.

VOSS G.
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                                                                                                                                                                                                                                                                                                                                                                                                                                   393
                                                                                                                                                                     TFNLNLNDILNSRLKKRKYFLDVLESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSY
                                                                                                                                                                                                                                                                          MAHHHHHHPGGS--GSGTMAISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIF
                                                                            KYIKESVENDIKFAQEGISYYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKT
                                                                                                                                               TFNLNLNDILNSRLKKRKYFLDVLESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSY
                                                                                                                                                                                                                                          MAHHHHHPGGSIEGRGTMAISVTMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIF
       DEQKKESKFLPFLTNIETLYNNLVNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKA
                                                   KYIKESVENDIKFAQEGISYYEKVLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Angov E,
                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                         99.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             393
                                                                                                                                                                                                                                                                                                                                     Score 2055; DB 7;
Pred. No. 2.4e-139;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MSP142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Voss
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                                                                                                                                                                                                                                                                                                                                        Indels
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RESULT 7
ABB79624
ID ABB7
XX ABB7
XX ABB7
XX ABB7
XX Mero
OS Plas
OS Synt
OS Chim
XX WO20
XX WO20
XX WO20
XX WO20
XX WO20
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                                                The present sequence is that of a recombinant protein comprising CC Plasmodium falciparum 3D7 merozoite surface protein-1 42 kDa fragment CC (MSP-1(42)) with an N-terminal (His)6-tag for affinity purification and CC an additional vector-encoded sequence (approximately 50 amino acids) CC which include an enterokinase cleavage site, a S-peptide tag and a CC thrombin cleavage site fused to the N-terminus of MSP-1(42). The levels CC of expression of this fusion protein, encoded by plasmid pET(50)MSP-142, CC were 5-10% of total E. coli protein in crude cell lysates, and the CC protein was purified to near homogeneity with 2 consecutive passes over a CC N12+-NTA agarose resin. The present invention relates to the production CC ilarge amounts of MSP-1(42) which maintain conformational epitopes CC critical for development as vaccines. The vaccines are useful against CC malaria or for eliciting immune responses against P. falciparum. The CC malaria or for malaria infection or prognosing the response to CC treatment of malaria patients, and for production of antibodies used for CC malaria antigen detection or as therapeutic or prophylactic agents
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New vaccine comprising Plasmodium falciparum MSP-142 protein and an adjuvant, useful against malaria or for eliciting immune responses against P. falciparum.
   Sequence 431 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure;
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Query Match

97.0%;

Score 2008.5;

BB ..

Length 431;

The invention relates to a recombinant Plasmodium falciparum merozoite protein, (MSP)- 1_42 which retains its native folding. The protein is

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RESULT 8
ABE71277
ID ABE7
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                                                                                                                     New recombinant Plasmodium falciparum merozoite protein (MSP)-142 which retains its native folding, useful for detecting and preventing malaria infection, and for antibody production.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MSP-1_42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABP71272;
                                                                         Claim 5; Page 95-96; 104pp; English.
                                                                                                                                                                                                                            WPI; 2003-221577/21.
                                                                                                                                                                                                                                                                                                                             (REED-)
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26-OCT-2001;
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2001US-0347564P.
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RESULT 9
ADM86519
ID ADM8
XX ADM867
AC ADM8
XX MA19
DT 03-J
XX MA19
XX Plas
XX Plas
XX Plas
XX Plas
XX Plas
XX MA19
XX
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Best Local S
Matches 385
                                                                                                       29-JAN-2001;
26-OCT-2001;
                                                                                                                                                                                                  28-AUG-2003
                                                                                                                                                                                                                                                                                                          Malaria; vaccine; merozoite immune response; diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      useful as a diagnostic reagent, in antibody production, and as a vaccine assinst malaria. The antibody may also be used for detecting and treating chronic malaria infection. The present sequence represents a recombinant in the present sequence represents a recombinant sequence.
             (LYON/)
(ANGO/)
(COHE/)
(VOSS/)
                                                                                                                                                            25-JAN-2002; 2002US-00057532.
                                                                                                                                                                                                                                     US2003161839-A1
                                                                                                                                                                                                                                                                                                                                                               pET(50)MSP1-42 P. falciparum MSP142
                                                                                                                                                                                                                                                                                                                                                                                                     03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                        ADM86519;
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                                                                                                                                                                                                                                                                         Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADM86519 standard; protein; 431
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             ANGOV E.
COHEN J D.
VOSS G.
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                                                                  LYON J A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HHHHHPGG-----SGSGTMAISV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PLFDGIFCSS 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTKPDSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFRHLDE
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2001US-0347563P.
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89.5%;
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Pred. No. 6e-136;
); Mismatches
                                                                                                                                                                                                                                                                                                                             protein-142; MSP-142;
                                                                                                                                                                                                                                                                                                                                                                 (3D7) protein
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               RESULT 10
ABB79623
ID ABB79
XX
AC ABB79
XY
AC ABB79
XY
DT 29-AU
DT 21-OC
XX
DE E. CO
XX
Meroz
KW Meroz
XX
Meros
XX
DS Plasm
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protozoacide

Merozoite

surface

protein-1;

MSP-1;

thoioredoxin; malaria; vaccine;

coli expressed P. falciparum MSP-1 recombinant protein

Plasmodium falciparum

29-AUG-2003 21-OCT-2002 ABB79623;

(revised) (first entry)

ABB79623

standard;

protein;

546

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Query Match
Best Local S
Matches 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to a malaria vaccine which comprises Plasmodium falciparum merozoite surface protein-142 (MSP-142), and an adjuvant consisting of A, B, C, D, and E. The invention also relates to a metho for inducing protective immune response to malaria. The invention is u as diagnostic reagent for antibody production or as vaccine against malaria infection. The present sequence is Escherichia coli expressed falciparum MSP142 (3D7) protein sequence in pET(50)MSP1-42. This sequence is used to illustrate the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Malaria
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JA,
                                                                                                                                            302
                                 382
                                                                       362
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422
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                                                                                                                                                                                                                                    VNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKKLIND
                                                                                                                                                                                                                                                                                                           VLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETLYNNL 201
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 PLFDGIFCSS
                                   PLFDGIFCSS
                                                                       REECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTKPDSY
                                                                                                        REECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTKPDSY
                                                                                                                                            DTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFRHLDE
                                                                                                                                                                                                                 VNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKKLIND
                                                                                                                                                                                                                                                                                      VLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETLYNNL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       TMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKYFLDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HHHHHHSSGLVPRGSGMKETAAAKFERQHMDSPDLGTDDDDKAMADIGSIEGRGTMAISV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO
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   431
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 2008.5; DB Pred. No. 6e-136; 0; Mismatches 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence is that of a recombinant protein comprising CC Escherichia coli thioredoxin at the N-terminus of plasmodium falciparum CC 3D7 merozoite surface protein-1 42 kDa fragment (MSP-1(42)). The protein CC was expressed in E. coli using vector pET-Trx42. This expression system provides sufficient levels of recombinant protein for development as a CC diagnostic and vaccine antigen, providing proper covalent disulfide CC bridging can be achieved. The present invention relates to the production CC of large amounts of MSP-1(42) which maintain conformational epitopes CC critical to epitope formation pure form. The vaccines are useful CC against malaria or for eliciting immune responses against P. falciparum. CC The recombinant MSP-1(42) proteins are useful in diagnostic assays, for CC in vitro monitoring of malaria infection or prognosing the response to CC treatment of malaria patients, and for production of antibodies used for malaria antigen detection or as therapeutic or prophylactic agents.

CC (Updated on 29-AUG-2003 to standardise OS field)
                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 546 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New vaccine comprising Plasmodium falciparum MSP-142 protein and a adjuvant, useful against malaria or for eliciting immune responses against P. falciparum.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 88-90; 99pp; English.
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                                                                                                                                                                                                                                                                                     TMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKYFLDV
                                                                                                                                                                                                                    LESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGISYYEK 141
                                                                                                                                                                                                                                                                                                                                 HHHHHHSSGLVPRGSGMKETAAAKFERQHMDSPDLGTDDDDKAMADIGSIEGRGTMAISV
                 DTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFRHLDE
                                                                                    VNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKKLIND
                                                                                                                                                       VLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETLYNNL
DTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFRHLDE
                                                                                                                                                                                                                                                                 TMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKYFLDV
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                                                                                                                                   VLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETLYNNL
                                                                                                                                                                                                 LESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGISYYEK
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                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                   97.0%;
89.5%;
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RESULT 11
ABP71271
ID 7ABP71
XX ABP71
AC ABP71
AC ABP71
AC ABP71
XX P. fa
DE P. fa
DE P. fa
XX MSP-1
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to a recombinant plasmodium falciparum merozoite protein, (MSP)-1 42 which retains it antive folding. The protein is useful as a diagnostic reagent, in antibody production, and as a vaccine against malaria. The antibody may also be used for detecting and treating chronic malaria infection. The present sequence represents a recombinant E. coli expressed P. falciparum MAP-1_42 protein expressed in clone pET-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New recombinant Plasmodium falciparum merozoite protein (MSP)-142 which retains its native folding, useful for detecting and preventing malaria infection, and for antibody production.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 93-95; 104pp; English
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26-OCT-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MSP-1_42; merozoite protein; protozoacide; vaccine; malaria; mosquito
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                                                                                                                                                                                                                                                                                                                                                                                                                 h 97.0%;
Similarity 89.5%;
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VLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETLYNNL
                                                                       LESDLMQFKHISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGISYYEK
                                                                                                     LESDLMOFKHISSNEYIIEDSFKLLNSEQKNTLLKSYKYIKESVENDIKFAQEGISYYEK 141
                                                                                                                                                                                TMDNILSGFENEYDVIYLKPLAGVYRSLKKQIEKNIFTFNLNLNDILNSRLKKRKYFLDV
                                                                                                                                                                                                                                                                                      HHHHHHSSGLVPRGSGMKETAAAKFERQHMDSPDLGTDDDDKAMADIGSIEGRGTMAISV
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2001US-0347564P
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                                                                                                                                                                                                                                                                                                                                                                                      Score 2008.5; DB 6
Pred. No. 8.3e-136;
0; Mismatches 4;
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VLAKYKDDLESIKKVIKEEKEKFPSSPPTTPPSPAKTDEQKKESKFLPFLTNIETLYNNL

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RESULT 12
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XX IMMUN
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                                                            Query Match
Best Local S
Matches 385
                                                                                                                                                                                      The invention relates to a malaria vaccine which comprises Plasmodium falciparum merozoite surface protein-142 (MSP-142), and an adjuvant consisting of A, B, C, D, and E. The invention also relates to a method for inducing protective immune response to malaria. The invention is used as diagnostic reagent for antibody production or as vaccine against malaria infection. The present sequence is Escherichia coli expressed P. falciparum MSP142 (3D7) protein sequence in pET-Trx42. This sequence is used to illustrate the method of the invention.
                                                                                                                                                Sequence 546 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (LYON/)
(ANGO/)
(COHE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lyon JA,
                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; SEQ ID NO 1; 41pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-JAN-2001;
26-OCT-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         Malaria vaccine comprises
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                                                            Local Similarity
nes 385; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LYON J A.
ANGOV E.
COHEN J D.
VOSS G.
standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTKPDSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTKPDSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFRHLDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VNKÎDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKKLIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PLFDGIFCSS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PLEDGIFCSS 391
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                                                                 Conservative
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2001US-0347563P.
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                                                                                 Score 2008.5;
Pred. No. 8.3
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                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G.
                                                                                     .3e-136;
                                                                                                       DB 7;
                                                            Indels
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                        --SGSGTMAISV
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RESULT 13
AAB83926
ID AAB83
XX AAB83
XX AAB83
XX Major
XX Major
XX Major
XX Major
XX Plasm
XX Plasm
XX O9-NC
PR 12-NC
PR 22-AU
XX O9-NC
XX O9-NC
XX U9-NC
XX
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                                                                                                                                                                                                                                                   WPI; 200
N-PSDB;
                                                                                                                                 Producing malaria vaccine, useful for treatment or prevention of all forms of malaria in humans, by expressing immunogenic merozoite protefragment in a baculovirus system.
                                                                                                                                                                                                                                                                                                                                                                                                                        (UYHA-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-NOV-1999; 99US-0165178P
01-DEC-1999; 99US-0168327P
22-AUG-2000; 2000US-0226861P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Major merozoite surface protein-1; MSP1-42; melittin signal malaria vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A major merozoite surface protein-1 fragment of 42kDa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB83926 standard; protein; 375
                                                                                                                                                                                                                                                                                                                                        Hui GSN,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JUL-2001
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                                                                                                                                                                                                                                                                                                                                                                                             (QUEE-)
                                                                                                                                                                                                                                                   2001-335879/35.
DB; AAF89840.
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                                                                                                                                                                                                                                                                                                                                                                                             UNIV HAWAII.
UNIV CHINESE HONG KONG
QUEEN EMMA FOUND.
                                                                                  3; Page 87-88; 95pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECTKPDSY 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCFRHLDE 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDFEAIKKLIND 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PLFDGIFCSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PLFDGIFCSS
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                                                                                                                                                                                                                                                                                                                                     Lap-Yin P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0165178P.
99US-0168327P.
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                                                                                                                                                                                                                                                                                                                                           WKK;
                                                                                                                                                                       protein
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The present sequence represents a major merozoite surface protein-1 terminal fragment of 42kDa (MSP1-42). This fragment is linked to a

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Example

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RESULT 14
ABB79626
ID ABB79
XX ABB79
AC ABB79
XX Plasm
XX Plasm
XX Meroz
XX Meroz
XX Meroz
XX Meroz
XX O1-AU
XX 25-JA
XX 26-JA
XX WPI
PA (REEL
XX WPI;
XX WPI;
XX WPI;
XX WPI;
XX Disc:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                          New vaccine comprising Plasmodium falciparum MSP-142 protein and adjuvant, useful against malaria or for eliciting immune response against P. falciparum.
                                                                                                                                                                  26-JAN-2001; 2001US-0264535P.
                                                                                                                                                                                            25-JAN-2002; 2002WO-US002554
Disclosure; Page 95-96; 99pp; English.
                                                                                  WPI; 2002-590798/63.
                                                                                                                                                                                                                                                     WO200258727-A2
                                                                                                                                                                                                                                                                                Plasmodium falciparum
                                                                                                                                                                                                                                                                                                           Merozoite surface protein-1; MSP-1; malaria; vaccine;
                                                                                                                                                                                                                                                                                                                                     Plasmodium falciparum merozoite surface protein-1 42 kDa fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                         ABB79626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        melittin signal peptide, and then expressed in a in a silkworm/baculovirus system. The protein is used to prepare vaccine, which is used to treat or prevent malaria, caused be four species of Plasmodium that infect humans
                                                                                                                                                                                                                                                                                                                                                                  21-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 375 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        : Local Simi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
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                                                                                                                                         REED ARMY INST RES WALTER.
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                                                                                                                                                                                                                                                                                                                                                                                                                     standard; protein; 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KPD6YPLFDGIFCSS 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKITCECT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSSRKKITCECT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KLINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPENSGCF
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                                                                                                           Angov E,
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ilarity 100.0%;
Conservative (
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Best Local S
Matches 376
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                                          29-JAN-2001;
26-OCT-2001;
                                                                                    25-JAN-2002;
                                                                                                                 16-JAN-2003
                                                                                                                                              WO2003004525-A2
                                                                                                                                                                         Plasmodium falciparum
                                                                                                                                                                                                    MSP-1_42; merozoite protein; protozoacide; vaccine; malaria; mosquito.
                                                                                                                                                                                                                                                             28-APR-2003
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                                                                                                                                                                                                                                                                                                                     ABP71274 standard;
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                (REED-) REED
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mes 376; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      SGCFRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKIT
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                                                                                                                                                                                                                                                                                                                                                                                              CECTKPDSYPLFDGIFCSS
                                          2001US-0264535P.
2001US-0347564P.
                                                                                    2002WO-US002428
               ARMY INST RES WALTER
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99.2%;
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Pred. No. 4.3e-133;
O; Mismatches 3;
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Query Match 95.0%;
Best Local Similarity 99.2%;
Matches 376; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to a recombinant Plasmodium falciparum merozoite protein, (MSP)-1 42 which retains its native folding. The protein is useful as a diagnostic reagent, in antibody production, and as a vaccine against malaria. The antibody may also be used for detecting and treating chronic malaria infection. The present sequence represents a recombinant E. coli expressed P. falciparum MAP-1_42 protein expressed in pMBP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New recombinant Plasmodium falciparum merozoite protein (MSP)-142 which retains its native folding, useful for detecting and preventing malaria infection, and for antibody production.
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                       CECTKPDSYPLFDGIFCSS 391
                                                                                                           SGCPRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKIT 372
                                                                                                                                                                                                   EAIKKLINDDTKKDMLGKLLSTGLVQNFPNTIISKLIEGKFQDMLNISQHQCVKKQCPEN 312
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                                                                                   SGCPRHLDEREECKCLLNYKQEGDKCVENPNPTCNENNGGCDADATCTEEDSGSSRKKIT
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CECTKPDSYPLFDGIFCSS
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Patent No. 4660498.
GENERAL WINFORMATION:
APPLICANT: Hui, George, S.N.
APPLICANT: Ho, Walter K.K.
Time.
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US-09-710-000-8
            APPLICANT: Lab-yin, Pang
TITLE OF INVENTION: Malaria Vaccine
FILE REFERENCE: 23461-2001100
CURRENT APPLICATION NUMBER: US/99/710,000
CURRENT FILING DATE: 2000-11-10
PRIOR APPLICATION NUMBER: 60/226,861
PRIOR FILING DATE: 2000-08-22
PRIOR APPLICATION NUMBER: 60/165,178
PRIOR APPLICATION NUMBER: 60/165,178
PRIOR APPLICATION NUMBER: 60/168,327
PRIOR FILING DATE: 1999-12-11
PRIOR FILING DATE: 1999-12-11
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OTHER INFORMATION: E
OTHER INFORMATION: E
Patent No. 6855322
US-10-057-531A-1
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PRIOR APPLICATION NUMBER: US 60/264,535;
PRIOR FILING DATE: 2001-01-26
PRIOR APPLICATION NUMBER: US 60/347,564;
PRIOR FILING DATE: 2001-10-26;
NUMBER OF SEQ ID NOS: 12;
SOPTWARE: APPLE Macintosh Microsoft Word 6.
SEQ ID NO 1
LENGTH: 546
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Best Local Similarity
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ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                   382 PLFDGIFCSS 391
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            417 DÍKKOMLGKLLSTGLVQNFÞNTÍÍSKLÍBGKFÓDMLNÍSÓHÓCVKKÓCÞENSGCFRHLDB 476
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SEQ ID NOS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VNKIDDYLINLKAKINDCNVEKDEAHVKITKLSDLKAIDDKIDLFKNPYDEEAIKKLIND 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VLÁKÝKDÓLEŠÍKKVÍKEEKEKPPSSPPTTPPSPÁKTDEOKKESKPLPFLTNÍETLÝNNL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TWDNÍLSGFÉNEYDVÍ YLKFLAGVYRSLKKÓ I EKNÍ FTFNLNLNDÍLNSRLKKRKYFLDV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HHHHHHSSGLVPRGSGMKETAAAKFERQHMDSPDLGTDDDDKAMADIGSIEGRGTMAISV 176
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Sequence in pET-Trx42
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Pred. No. 4.9e-144;
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Query Match
Best Local Similarity
Matches 376; Conserve
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US-10-057-531A-5
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US-10-057-531A-5
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LENGTH: 383
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OTHER INFORMATION: a
US-09-710-000-8
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                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 5, Application US/10057531A Patent No. 6855322 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                          APPLICANT: Lyon, Jeffrey A.
APPLICANT: Angov, Evelina
TITLE OF INVENTION: Isolation and Purification
TITLE OF INVENTION: Protein-142 Vaccine
FILE REFERENCE: 003/241/SAP
                                                                                                                                                                     TYPE: PRT
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SEQ ID NO 8
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61 YFLDVLESDIMOFKHISSNEYIIEDSFKLLNSEOKNTLLKSYKYIKESVENDIKFAQEGI 120
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99.2%;
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Pred. No. 2.5e-141;
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